



## Product comparison guide

➤ Analog video solutions



Choose with confidence.

**PELCO**

by **Schneider** Electric

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As the global leader in the design and development of video security systems, Pelco™ by Schneider Electric™ produces an unmatched array of cameras, positioning systems, video matrix systems, next-generation DVRs and HVRs, and viewing solutions. Pelco has a video solution to suit your application.

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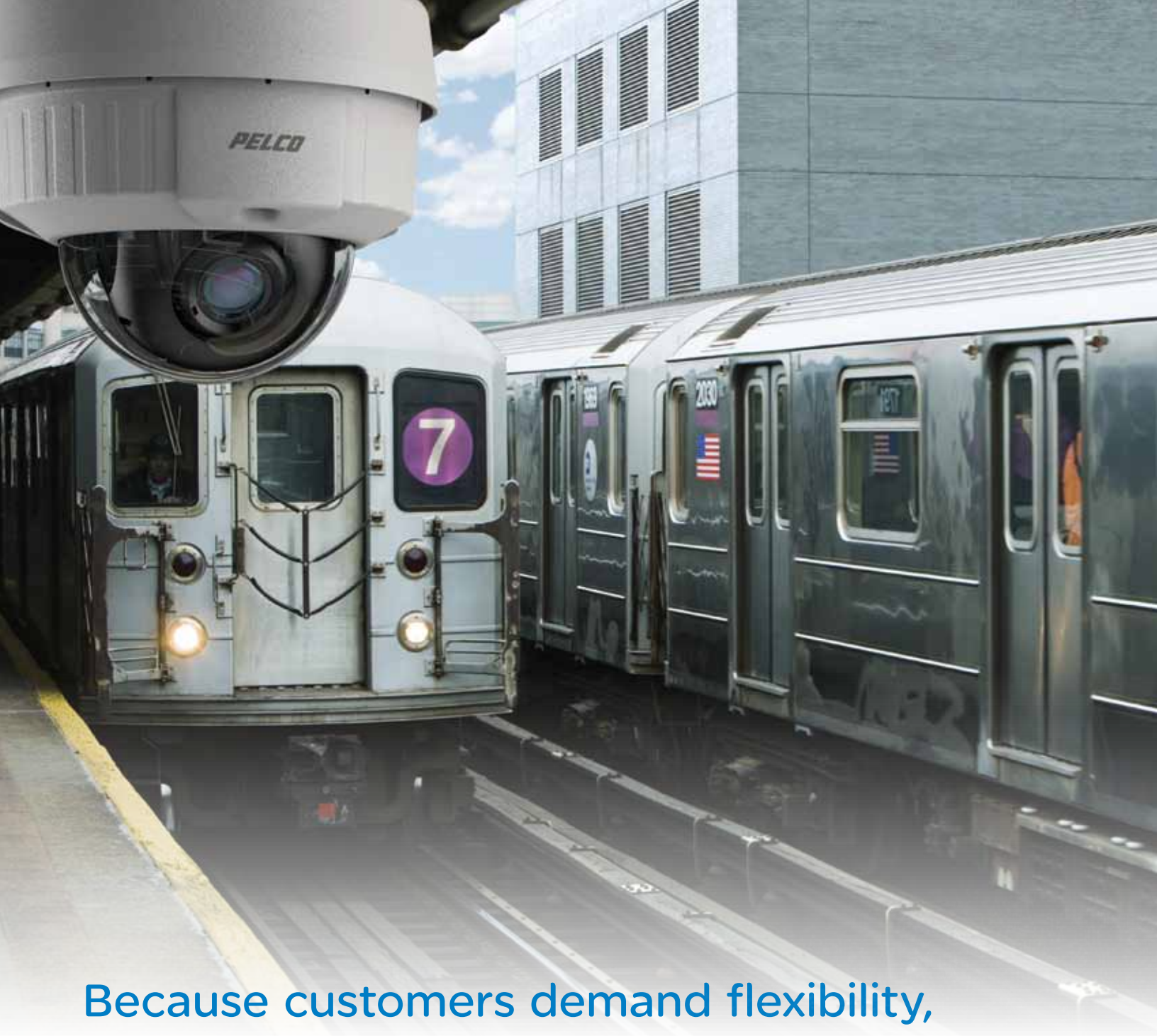
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Features and specifications subject to change without notice.  
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Because customers demand flexibility,  
all Pelco video products are designed with  
open and integrated solutions in mind.

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## Analog PTZ cameras

For more than a decade, Spectra has set the benchmark for PTZ performance and reliability. From the flagship 36x Spectra IV SE to Spectra mini, to environmental and ruggedized models, there is a Spectra dome to meet the needs of nearly any application.

|                                   | Spectra Mini                                                                      | Spectra IV SL                                                                      | Spectra IV SE                                                                                    |
|-----------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|
|                                   |  |  |               |
|                                   | <b>SD4*<br/>10X Spectra Mini**</b>                                                | <b>SD423* 23x SL<br/>(standard or environmental)†</b>                              | <b>SD429* 29x SE<br/>(standard or environmental)†</b>                                            |
| Imager                            | 1/4-inch Interline CCD                                                            | 1/4-inch Exview HAD CCD                                                            | 1/4-inch Exview HAD CCD                                                                          |
| Processors                        | 1                                                                                 | 1                                                                                  | 1                                                                                                |
| Scanning                          | 2:1 interlaced                                                                    | 2:1 interlaced                                                                     | Progressive                                                                                      |
| Lens / Zoom                       | F1.8, 4.2 – 42 mm / 80x zoom<br>(10x optical 8x digital)                          | F1.6, 3.6 – 82.8 mm / 276x zoom<br>(23x optical 12x digital)                       | F1.4, 3.4 – 98.1 mm / 324x zoom<br>(29x optical 12x digital)                                     |
| Field Of View                     | 5.0° to 46.4°                                                                     | 2.5° to 54°                                                                        | 2.3° to 55.8°                                                                                    |
| Day/Night                         | No                                                                                | Yes                                                                                | Yes                                                                                              |
| Resolution                        | 470 TVL                                                                           | 540 TVL                                                                            | 540 TVL                                                                                          |
| Digital Slow Shutter (DSS)        | No                                                                                | No                                                                                 | Yes                                                                                              |
| Sensitivity                       | 3 lux                                                                             | 35 IRE: 0.65 lux at 1/60 sec (color), 0.15 lux at 1/60 sec (B-W)                   | 35 IRE: 0.55 lux at 1/60 sec (color), 0.018 lux at 1/2 sec (color), 0.00018 lux at 1/2 sec (B-W) |
| Wide Dynamic Range                | No                                                                                | No                                                                                 | Yes                                                                                              |
| Proportional Pan/Tilt             | Yes                                                                               | Yes                                                                                | Yes                                                                                              |
| Pan / Tilt Features               | 360° continuous pan / 92° tilt range / mechanical auto flip                       | 360° continuous pan / 92° tilt range / mechanical auto flip                        | 360° continuous pan / 92° tilt range / mechanical auto flip                                      |
| Presets / Preset Speed / Patterns | 64 / 140° per sec / 1                                                             | 64 / 400° per sec / 1                                                              | 256 / 400° per sec / 8                                                                           |
| Window Blanking                   | 1 Window Blank                                                                    | Up to four, four-sided, user-defined shapes                                        | Up to eight, four-sided, user-defined shapes                                                     |
| Auto-tracking                     | No                                                                                | No                                                                                 | Yes                                                                                              |
| Motion Detection                  | No                                                                                | No                                                                                 | Yes                                                                                              |
| Image Stabilization               | No                                                                                | No                                                                                 | No                                                                                               |
| Image Enhancement                 | No                                                                                | No                                                                                 | No                                                                                               |
| "Sure Focus" Menu Selection       | No                                                                                | No                                                                                 | Yes                                                                                              |
| Sodium Light White Balance        | No                                                                                | No                                                                                 | Yes                                                                                              |
| Alarm Inputs                      | 1                                                                                 | 1                                                                                  | 7                                                                                                |
| Relay Outputs                     | 1                                                                                 | 1                                                                                  | 2                                                                                                |
| Audio                             | No                                                                                | No                                                                                 | No                                                                                               |
| Audio Compression                 | No                                                                                | No                                                                                 | No                                                                                               |
| USB Expansion Ports               | No                                                                                | No                                                                                 | No                                                                                               |
| Analog Data Formats               | None                                                                              | Coaxitron, RS-422 (P & D)                                                          | Coaxitron, RS-422 (P & D)                                                                        |
| Analog Output                     | Yes, BNC                                                                          | Yes, BNC                                                                           | Yes, BNC                                                                                         |
| Power                             | 18 – 30 VAC, 24 VAC nominal; 0.75 A, 50/60 Hz nominal                             | 18 – 32 VAC (24 VAC); 22 – 27 VDC (24 VDC); 23 VA nominal                          | 18 – 32 VAC (24 VAC); 22 – 27 VDC (24 VDC); 23 VA nominal                                        |
| Certifications                    | FCC and CE-Class B; UL/cUL Listed; C-Tick, CCC                                    | FCC and CE-Class B; UL/cUL Listed; C-Tick, CCC                                     | FCC and CE-Class B; UL/cUL Listed; C-Tick, CCC                                                   |
| Warranty                          | 2 years                                                                           | 3 years                                                                            | 3 years                                                                                          |

\* Visit B.O.S.S. 5.1 at [www.pelco.com](http://www.pelco.com) for complete part numbers. \*\* IP40 rated † IP66 rated

## Analog PTZ cameras

For more than a decade, Spectra has set the benchmark for PTZ performance and reliability. From the flagship 35x Spectra IV SE, to Spectra mini, to environmental and ruggedized models, there's a Spectra dome to meet nearly any application need.

| Spectra IV SE                        |                                                                                                        |                                                                                                        |                                                                                                        |                                                                                                        |
|--------------------------------------|--------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|
|                                      |                       |                       |                     |                     |
|                                      | <b>SD429-H*<br/>29x SE heavy duty†‡</b>                                                                | <b>SD429-PSG*<br/>29x SE stainless steel†</b>                                                          | <b>SD436* 36x SE<br/>(standard or environmental)†</b>                                                  | <b>SD436-H*<br/>36x SE heavy duty†‡</b>                                                                |
| Imager                               | 1/4-inch Exview HAD CCD                                                                                | 1/4-inch Exview HAD CCD                                                                                | 1/4-inch Exview HAD CCD                                                                                | 1/4-inch Exview HAD CCD                                                                                |
| Processors                           | 1                                                                                                      | 1                                                                                                      | 1                                                                                                      | 1                                                                                                      |
| Scanning                             | Interlaced/progressive                                                                                 | Interlaced/progressive                                                                                 | Interlaced/progressive                                                                                 | Interlaced/progressive                                                                                 |
| Lens / Zoom                          | F1.4, 3.4 – 98.1 mm / 324x zoom<br>(29x optical 12x digital)                                           | F1.4, 3.4 – 98.1 mm / 324x zoom<br>(29x optical 12x digital)                                           | f/1.4 (focal length, 3.3 ~ 119 mm)<br>(36x optical 12x digital)                                        | F1.4, 3.4 – 119 mm / 420x zoom<br>(36x optical 12x digital)                                            |
| Field Of View                        | 2.3° to 55.8°                                                                                          | 2.3° to 55.8°                                                                                          | 1.7° to 55.8°                                                                                          | 1.7° to 55.8°                                                                                          |
| Day/Night                            | Yes                                                                                                    | Yes                                                                                                    | Yes                                                                                                    | Yes                                                                                                    |
| Resolution                           | 540 TVL                                                                                                | 540 TVL                                                                                                | 540 TVL                                                                                                | 540 TVL                                                                                                |
| Digital Slow Shutter (DSS)           | Yes                                                                                                    | Yes                                                                                                    | Yes                                                                                                    | Yes                                                                                                    |
| Sensitivity                          | 35 IRE: 0.55 lux at 1/60 sec (color),<br>0.018 lux at 1/2 sec (color), 0.00018<br>lux at 1/2 sec (B-W) | 35 IRE: 0.55 lux at 1/60 sec (color),<br>0.018 lux at 1/2 sec (color), 0.00018<br>lux at 1/2 sec (B-W) | 35 IRE: 0.55 lux at 1/60 sec (color),<br>0.018 lux at 1/2 sec (color), 0.00018<br>lux at 1/2 sec (B-W) | 35 IRE: 0.55 lux at 1/60 sec (color),<br>0.018 lux at 1/2 sec (color), 0.00018<br>lux at 1/2 sec (B-W) |
| Wide Dynamic Range                   | Yes                                                                                                    | Yes                                                                                                    | Yes                                                                                                    | Yes                                                                                                    |
| Proportional Pan/Tilt                | Yes                                                                                                    | Yes                                                                                                    | Yes                                                                                                    | Yes                                                                                                    |
| Pan / Tilt Features                  | 360° continuous pan / 92° tilt range /<br>mechanical auto flip                                         | 360° continuous pan / 92° tilt range /<br>mechanical auto flip                                         | 360° continuous pan / 92° tilt range /<br>mechanical auto flip                                         | 360° continuous pan / 92° tilt range /<br>mechanical auto flip                                         |
| Presets / Preset Speed /<br>Patterns | 256 / 400° per sec / 8                                                                                 | 256 / 400° per sec / 8                                                                                 | 256 / 400° per sec / 8                                                                                 | 256 / 400° per sec / 8                                                                                 |
| Window Blanking                      | Up to eight, four-sided, user-defined<br>shapes.                                                       | Up to eight, four-sided, user-defined<br>shapes.                                                       | Up to eight, four-sided, user-defined<br>shapes.                                                       | Up to eight, four-sided, user-defined<br>shapes.                                                       |
| Auto-tracking                        | Yes                                                                                                    | Yes                                                                                                    | Yes                                                                                                    | Yes                                                                                                    |
| Motion Detection                     | Yes                                                                                                    | Yes                                                                                                    | Yes                                                                                                    | Yes                                                                                                    |
| Image Stabilization                  | Yes                                                                                                    | Yes                                                                                                    | Yes                                                                                                    | Yes                                                                                                    |
| Image Enhancement                    | No                                                                                                     | No                                                                                                     | Yes                                                                                                    | Yes                                                                                                    |
| "Sure Focus" Menu Selection          | Yes                                                                                                    | Yes                                                                                                    | Yes                                                                                                    | Yes                                                                                                    |
| Sodium Light White Balance           | Yes                                                                                                    | Yes                                                                                                    | Yes                                                                                                    | Yes                                                                                                    |
| Alarm Inputs                         | 7                                                                                                      | 7                                                                                                      | 7                                                                                                      | 7                                                                                                      |
| Relay Outputs                        | 2                                                                                                      | 2                                                                                                      | 2                                                                                                      | 2                                                                                                      |
| Audio                                | No                                                                                                     | No                                                                                                     | No                                                                                                     | No                                                                                                     |
| Audio Compression                    | G.711 PCM 8 bit, 8kHz mono at 64<br>kbits/s                                                            | G.711 PCM 8 bit, 8kHz mono at 64<br>kbits/s                                                            | G.711 PCM 8 bit, 8kHz mono at 64<br>kbits/s                                                            | G.711 PCM 8 bit, 8kHz mono at 64<br>kbits/s                                                            |
| USB Expansion Ports                  | No                                                                                                     | No                                                                                                     | No                                                                                                     | No                                                                                                     |
| Analog Data Formats                  | Coaxitron, RS-422 (P & D)                                                                              | Coaxitron, RS-422 (P & D)                                                                              | Coaxitron, RS-422 (P & D)                                                                              | Coaxitron, RS-422 (P & D)                                                                              |
| Analog Output                        | Yes, BNC                                                                                               | Yes, BNC                                                                                               | Yes, BNC                                                                                               | Yes, BNC                                                                                               |
| Power                                | 18 – 32 VAC (24 VAC); 22 – 27 VDC<br>(24 VDC); 23 VA nominal                                           | 18 – 32 VAC (24 VAC); 22 – 27 VDC<br>(24 VDC); 23 VA nominal                                           | 18 – 32 VAC (24 VAC); 22 – 27 VDC<br>(24 VDC); 23 VA nominal                                           | 18 – 32 VAC (24 VAC); 22 – 27 VDC<br>(24 VDC); 23 VA nominal                                           |
| Certifications                       | FCC and CE-Class B; UL/cUL Listed;<br>C-Tick, CCC                                                      | FCC and CE-Class B; UL/cUL Listed;<br>C-Tick, CCC                                                      | FCC and CE-Class B; UL/cUL Listed;<br>C-Tick, CCC                                                      | FCC and CE-Class B; UL/cUL Listed;<br>C-Tick, CCC                                                      |
| Warranty                             | 3 years                                                                                                | 3 years                                                                                                | 3 years                                                                                                | 3 years                                                                                                |

\* Visit B.O.S.S. 5.1 at [www.pelco.com](http://www.pelco.com) for complete part numbers. † IP66 rated ‡ Vandal resistant

**Analog PTZ cameras continued >>**

## Analog PTZ cameras

For more than a decade, Spectra has set the benchmark for PTZ performance and reliability. From the flagship 36x Spectra IV SE to Spectra mini, to environmental and ruggedized models, there is a Spectra dome to meet the needs of nearly any application.

| Spectra IV SE                     |                                                                                                                             |                                                                                                                                    |                                                                                                                          |
|-----------------------------------|-----------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|
|                                   | <br><b>SD436-H*</b><br>36x SE heavy duty†‡ | <br><b>SD436-PSG*</b><br>36x SE stainless steel† | <br><b>SD4H36*</b><br>36x SE horizon† |
| Imager                            | 1/4-inch Exview HAD CCD                                                                                                     | 1/4-inch Exview HAD CCD                                                                                                            | 1/4-inch Exview HAD CCD                                                                                                  |
| Processors                        | 1                                                                                                                           | 1                                                                                                                                  | 1                                                                                                                        |
| Scanning                          | Interlaced/progressive                                                                                                      | Interlaced/progressive                                                                                                             | Interlaced/progressive                                                                                                   |
| Lens / Zoom                       | F1.4, 3.4 – 119 mm / 420x zoom<br>(36x optical 12x digital)                                                                 | F1.4, 3.4 – 119 mm / 420x zoom<br>(36x optical 12x digital)                                                                        | F1.4, 3.4 – 119 mm / 420x zoom<br>(36x optical 12x digital)                                                              |
| Field Of View                     | 1.7° to 55.8°                                                                                                               | 1.7° to 55.8°                                                                                                                      | 1.7° to 55.8°                                                                                                            |
| Day/Night                         | Yes                                                                                                                         | Yes                                                                                                                                | Yes                                                                                                                      |
| Resolution                        | 540 TVL                                                                                                                     | 540 TVL                                                                                                                            | 540 TVL                                                                                                                  |
| Digital Slow Shutter (DSS)        | Yes                                                                                                                         | Yes                                                                                                                                | Yes                                                                                                                      |
| Sensitivity                       | 35 IRE: 0.55 lux at 1/60 sec (color), 0.018 lux at 1/2 sec (color), 0.00018 lux at 1/2 sec (B-W)                            | 35 IRE: 0.55 lux at 1/60 sec (color), 0.018 lux at 1/2 sec (color), 0.00018 lux at 1/2 sec (B-W)                                   | 35 IRE: 0.55 lux at 1/60 sec (color), 0.018 lux at 1/2 sec (color), 0.00018 lux at 1/2 sec (B-W)                         |
| Wide Dynamic Range                | Yes                                                                                                                         | Yes                                                                                                                                | Yes                                                                                                                      |
| Proportional Pan/Tilt             | Yes                                                                                                                         | Yes                                                                                                                                | Yes                                                                                                                      |
| Pan / Tilt Features               | 360° continuous pan / 92° tilt range / mechanical auto flip                                                                 | 360° continuous pan / 92° tilt range / mechanical auto flip                                                                        | 360° continuous pan / 110° tilt range / mechanical auto flip                                                             |
| Presets / Preset Speed / Patterns | 256 / 400° per sec / 8                                                                                                      | 256 / 400° per sec / 8                                                                                                             | 256 / 400° per sec / 8                                                                                                   |
| Window Blanking                   | Up to eight, four-sided, user-defined shapes.                                                                               | Up to eight, four-sided, user-defined shapes.                                                                                      | Up to eight, four-sided, user-defined shapes.                                                                            |
| Auto-tracking                     | Yes                                                                                                                         | Yes                                                                                                                                | Yes                                                                                                                      |
| Motion Detection                  | Yes                                                                                                                         | Yes                                                                                                                                | Yes                                                                                                                      |
| Image Stabilization               | Yes                                                                                                                         | Yes                                                                                                                                | Yes                                                                                                                      |
| Image Enhancement                 | Yes                                                                                                                         | Yes                                                                                                                                | Yes                                                                                                                      |
| "Sure Focus" Menu Selection       | Yes                                                                                                                         | Yes                                                                                                                                | Yes                                                                                                                      |
| Sodium Light White Balance        | Yes                                                                                                                         | Yes                                                                                                                                | Yes                                                                                                                      |
| Alarm Inputs                      | 7                                                                                                                           | 7                                                                                                                                  | 7                                                                                                                        |
| Relay Outputs                     | 2                                                                                                                           | 2                                                                                                                                  | 2                                                                                                                        |
| Audio                             | No                                                                                                                          | No                                                                                                                                 | No                                                                                                                       |
| Audio Compression                 | G.711 PCM 8 bit, 8kHz mono at 64 kbits/s                                                                                    | N/A                                                                                                                                | G.711 PCM 8 bit, 8kHz mono at 64 kbits/s                                                                                 |
| USB Expansion Ports               | No                                                                                                                          | No                                                                                                                                 | No                                                                                                                       |
| Analog Data Formats               | Coaxitron, RS-422 (P & D)                                                                                                   | Coaxitron, RS-422 (P & D)                                                                                                          | Coaxitron, RS-422 (P & D)                                                                                                |
| Analog Output                     | Yes, BNC                                                                                                                    | Yes, BNC                                                                                                                           | Yes, BNC                                                                                                                 |
| Power                             | 18 – 32 VAC (24 VAC); 22 – 27 VDC (24 VDC);<br>23 VA nominal                                                                | 18 – 32 VAC (24 VAC); 22 – 27 VDC (24 VDC);<br>23 VA nominal                                                                       | 18 – 32 VAC (24 VAC); 22 – 27VDC (24 VDC);<br>23 VA nominal                                                              |
| Certifications                    | FCC and CE-Class B; UL/cUL Listed; C-Tick, CCC                                                                              | FCC and CE-Class B; UL/cUL Listed; C-Tick, CCC                                                                                     | FCC and CE-Class B; UL/cUL Listed; C-Tick, CCC                                                                           |
| Warranty                          | 3 years                                                                                                                     | 3 years                                                                                                                            | 3 years                                                                                                                  |

\* Visit B.O.S.S. 5.1 at [www.pelco.com](http://www.pelco.com) for complete part numbers. † IP66 rated ‡ Vandal resistant

## Analog PTZ cameras

The Esprit™ SE positioning system brings together the very best in enclosure design, pan-and-tilt mechanics, and receiver technologies. This completely integrated package offers responsive, high-speed positioning capabilities, outstanding weather protection, and a level of aesthetics and ease-of-installation that remains unmatched in the industry.

### Esprit SE



**36x Esprit SE  
deterrent PTZ**



**36x Esprit SE pressurized  
deterrent PTZ**

|                                   |                                                                                                  |                                                                                                  |
|-----------------------------------|--------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|
| Imager                            | 1/4-inch EXview HAD CCD                                                                          | 1/4-inch EXview HAD CCD                                                                          |
| Processors                        | 1                                                                                                | 1                                                                                                |
| Scanning                          | Interlaced/progressive                                                                           | Interlaced/progressive                                                                           |
| Lens / Zoom                       | f/1.4, 3.3 ~ 119 mm / 432x (36x optical 12x digital)                                             | f/1.4, 3.3 ~ 119 mm / 432x (36x optical 12x digital)                                             |
| Field Of View                     | 1.7° to 57.2°                                                                                    | 1.7° to 57.2°                                                                                    |
| Day/Night                         | Yes                                                                                              | Yes                                                                                              |
| Resolution                        | 540 TVL                                                                                          | 540 TVL                                                                                          |
| Digital Slow Shutter (DSS)        | Yes                                                                                              | Yes                                                                                              |
| Sensitivity                       | 35 IRE: 0.55 lux at 1/60 sec (color), 0.018 lux at 1/2 sec (color), 0.00018 lux at 1/2 sec (B-W) | 35 IRE: 0.55 lux at 1/60 sec (color), 0.018 lux at 1/2 sec (color), 0.00018 lux at 1/2 sec (B-W) |
| Wide Dynamic Range                | Yes                                                                                              | Yes                                                                                              |
| Proportional Pan/Tilt             | Yes                                                                                              | Yes                                                                                              |
| Pan / Tilt Features               | 360° continuous / unobstructed +36° to -85° / mechanical auto flip                               | 360° continuous / unobstructed +36° to -85° / mechanical auto flip                               |
| Presets / Preset Speed / Patterns | 256 / 100°/sec / 8                                                                               | 256 / 100°/sec / 8                                                                               |
| Motion Detection                  | Yes                                                                                              | Yes                                                                                              |
| Window Blanking                   | 8, programmable                                                                                  | 8, programmable                                                                                  |
| Image Stabilization               | Yes                                                                                              | Yes                                                                                              |
| Image Enhancement                 | Yes                                                                                              | Yes                                                                                              |
| "Sure Focus" Menu Selection       | Yes                                                                                              | Yes                                                                                              |
| Low Lux Noise Reduction           | Yes                                                                                              | Yes                                                                                              |
| Programmable Zoom Speeds          | Yes                                                                                              | Yes                                                                                              |
| Low Light Focus/Limit Selection   | Yes                                                                                              | Yes                                                                                              |
| Power Up Actions                  | Yes                                                                                              | Yes                                                                                              |
| Relay Outputs                     | 1                                                                                                | 1                                                                                                |
| Alarm Inputs                      | 0                                                                                                | 0                                                                                                |
| Operating Temperature Range       | -45 to 50 °C (-50 to 122 °F)                                                                     | -45 to 50 °C (-50 to 122 °F)                                                                     |
| Environmental Ratings             | IP66                                                                                             | IP66 pan/tilt, optics package meets IP67                                                         |
| Power                             | 24 VAC or 120 to 230 VAC, 50/60 Hz                                                               | 24 VAC or 120 to 230 VAC, 50/60 Hz                                                               |
| Certifications                    | CE Class B; FCC Class B; UL/cUL Listed; C-Tick                                                   | CE Class B; FCC Class B; UL/cUL Listed; C-Tick                                                   |
| Warranty                          | 3 years                                                                                          | 3 years                                                                                          |

### ExSite



**36x ExSite  
explosion-proof PTZ and fixed**

|                                   |                                                                                                  |
|-----------------------------------|--------------------------------------------------------------------------------------------------|
| Imager                            | 1/4-inch EXview HAD CCD                                                                          |
| Processors                        | 1                                                                                                |
| Scanning                          | Interlaced/progressive                                                                           |
| Lens / Zoom                       | f/1.4, 3.3 ~ 119 mm / 432x (36x optical 12x digital)                                             |
| Field Of View                     | 1.7° to 57.2°                                                                                    |
| Day/Night                         | Yes                                                                                              |
| Resolution                        | 540 TVL                                                                                          |
| Digital Slow Shutter (DSS)        | Yes                                                                                              |
| Sensitivity                       | 35 IRE: 0.55 lux at 1/60 sec (color), 0.018 lux at 1/2 sec (color), 0.00018 lux at 1/2 sec (B-W) |
| Wide Dynamic Range                | Yes                                                                                              |
| Proportional Pan/Tilt             | Yes                                                                                              |
| Pan / Tilt Features               | 360° continuous / unobstructed +36° to -85° / mechanical auto flip                               |
| Presets / Preset Speed / Patterns | 256 / 100°/sec / 8                                                                               |
| Motion Detection                  | Yes                                                                                              |
| Window Blanking                   | 8, Programmable                                                                                  |
| Image Stabilization               | Yes                                                                                              |
| Image Enhancement                 | Yes                                                                                              |
| "Sure Focus" Menu Selection       | Yes                                                                                              |
| Low Lux Noise Reduction           | Yes                                                                                              |
| Programmable Zoom Speeds          | Yes                                                                                              |
| Low Light Focus/Limit Selection   | Yes                                                                                              |
| Power Up Actions                  | Yes                                                                                              |
| Relay Outputs                     | 3                                                                                                |
| Alarm Inputs                      | 7                                                                                                |
| Operating Temperature Range       | -76 to 140 °F (-60 to 60 °C)                                                                     |
| Environmental Ratings             | IP66                                                                                             |
| Power                             | 24 VAC or 100 to 240 VAC, 50/60 Hz                                                               |
| Certifications                    | DEMKO 04 ATEX 0413858X 0539 II 2 G Ex d IIC, T5 II 2 D Ex tD A21 IP66 T105 °C                    |
| Warranty                          | 3 years                                                                                          |

Visit B.O.S.S. 5.1 at [www.pelco.com](http://www.pelco.com) for complete part numbers.

## Analog fixed dome cameras

Featuring Super Dynamic 5 (SD5) image technology, Camclosure™ 2 delivers unmatched performance and reliability at a remarkably affordable price. With a choice of high-resolution color CCD cameras built into a reliable, easy-to-install system – Camclosure 2 will soon be your video security camera system of choice.

### IS20/IS21 Camclosure 2 - indoor models



**IS20/IS21-DWS Series**  
Super Dynamic 5 (SD5) day/night  
wide dynamic range models



**IS20/IS21-DN Series**  
true day/night models



**IS20/IS21-CH Series**  
color models with simple day/night

| Image Sensor                                  | 1/3-inch interline transfer CCD                                                                                  | 1/3-inch interline transfer CCD                                 | 1/3-inch interline transfer CCD                             |
|-----------------------------------------------|------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|-------------------------------------------------------------|
| Effective Pixels (NTSC / PAL)                 | 976 (H) x 494 (V) / 976 (H) x 582 (V)                                                                            | 768 (H) x 494 (V) / 752 (H) x 582 (V)                           | 768 (H) x 494 (V) / 752 (H) x 582 (V)                       |
| Scanning Area                                 | 0.19-inch (H) x 0.14-inch (V) (4.8 x 3.6 mm)                                                                     | 0.19-inch (H) x 0.15-inch (V) (4.9 x 3.7 mm)                    | 0.19-inch (H) x 0.15-inch (V) (4.9 x 3.7 mm)                |
| Scanning System                               | 2:1 interlace                                                                                                    | 2:1 interlace                                                   | 2:1 interlace                                               |
| Scanning Lines (NTSC / PAL)                   | 525 lines / 625 lines                                                                                            | 525 lines / 625 lines                                           | 525 lines / 625 lines                                       |
| Scanning Frequency                            |                                                                                                                  |                                                                 |                                                             |
| NTSC                                          | Horizontal, 15.734 kHz<br>vertical, 59.94 Hz                                                                     | Horizontal, 15.734 kHz<br>vertical, 59.94 Hz                    | Horizontal, 15.734 kHz<br>vertical, 59.94 Hz                |
| PAL                                           | Horizontal, 15.625 kHz<br>vertical, 50.00 Hz                                                                     | Horizontal, 15.625 kHz<br>vertical, 50.00 Hz                    | Horizontal, 15.625 kHz<br>vertical, 50.00 Hz                |
| Synchronization                               | Internal LL (phase adjustable power supply synchronization)                                                      | Internal                                                        | Internal                                                    |
| Horizontal Resolution                         | 650 TV lines, typical (color mode)<br>700 TV lines or more (B-W mode)                                            | 540 TV lines (color mode, at center)<br>570 TV lines (B-W mode) | 540 TV lines (at center)                                    |
| Minimum Illumination                          | 0.1 lux (color mode)<br>0.003 lux (sensitivity up x32)<br>0.01 lux (B-W mode)<br>0.0003 lux (sensitivity up x32) | 0.06 lux (color mode)<br>0.05 lux (B-W mode)                    | 0.6 lux (color mode)<br>0.4 lux (B-W mode)                  |
| Dynamic Range                                 | 54 dB                                                                                                            | Adaptive Black Stretch                                          | Adaptive Black Stretch                                      |
| Day/Night Type                                | IR filter removal                                                                                                | IR filter removal                                               | Simple                                                      |
| Video Output                                  | 1.0 Vp-p, NTSC/PAL composite, 75 ohms, BNC connector                                                             | 1.0 Vp-p, NTSC/PAL composite, 75 ohms, BNC connector            | 1.0 Vp-p, NTSC/PAL composite, 75 ohms, BNC connector        |
| White Balance                                 | Auto tracking white balance/automatic white balance control                                                      | Auto tracking white balance/automatic white balance control     | Auto tracking white balance/automatic white balance control |
| Signal-to-Noise Ratio                         | 50 dB (equivalent to AGC Off, weight On)                                                                         | 50 dB (equivalent to AGC Off, weight On)                        | 50 dB (equivalent to AGC Off, weight On)                    |
| Lens                                          | 2x varifocal lens                                                                                                | 3.6x varifocal lens                                             | 3.6x varifocal lens                                         |
| Focal Length                                  | 3.8 ~ 8.0 mm                                                                                                     | 2.8 ~ 10.0 mm                                                   | 2.8 ~ 10.0 mm                                               |
| F-Number                                      | f/1.4 (WIDE) to f/1.8 (TELE)                                                                                     | f/1.3 (WIDE) to f/3.1 (TELE)                                    | f/1.3 (WIDE) to f/3.1 (TELE)                                |
| Focus Range                                   | x to 3.9 ft (1.2 m)                                                                                              | x to 3.9 ft (1.2 m)                                             | x to 3.9 ft (1.2 m)                                         |
| Angle of View                                 |                                                                                                                  |                                                                 |                                                             |
| Horizontal                                    | 73.6° wide zoom; 35.6° telephoto zoom                                                                            | 100° at 50 ft wide zoom; 27° at 39 ft telephoto zoom            | 100° at 18 ft wide zoom; 27° at 39 ft telephoto zoom        |
| Vertical                                      | 53.4° wide zoom; 26.6° telephoto zoom                                                                            | 73° at 51 ft wide zoom; 20° at 45 ft telephoto zoom             | 73° at 33 ft wide zoom; 20° at 45 ft telephoto zoom         |
| Adjusting Angle (Pan   Tilt   Rotation Range) | +/-170°   +/-75°   +/-100°                                                                                       | +180° to -140°   +/-75°   +/-100°                               | +180° to -140°   +/-75°   +/-100°                           |
| Power                                         | 24 VAC or 12 VDC operation, autosensing                                                                          | 24 VAC or 12 VDC operation, autosensing                         | 24 VAC or 12 VDC operation, autosensing                     |
| Certifications                                | CE Class A; FCC Class A; UL/cUL Listed; C-Tick                                                                   | CE Class A; FCC Class A; UL/cUL Listed; C-Tick                  | CE Class A; FCC Class A; UL/cUL Listed; C-Tick              |

## Analog fixed dome cameras

Featuring Super Dynamic 5 (SD5) image technology, Camclosure 2 delivers unmatched performance and reliability at a remarkably affordable price. With a choice of high-resolution color CCD cameras built into a reliable, easy-to-install system – Camclosure 2 will soon be your video security camera system of choice.

### IS50/IS51 Camclosure 2 - outdoor models



**IS50/IS51-DWS Series**  
Super Dynamic 5 (SD5) day/night  
wide dynamic range models



**IS50/IS51-DN Series**  
true day/night models



**IS50/IS51-CH Series**  
color models with simple day/night

| Image Sensor                                     | 1/3-inch interline transfer CCD                                                                                  | 1/3-inch interline transfer CCD                                 | 1/3-inch interline transfer CCD                                |
|--------------------------------------------------|------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|----------------------------------------------------------------|
| Effective Pixels (NTSC / PAL)                    | 976 (H) x 494 (V) / 976 (H) x 582 (V)                                                                            | 768 (H) x 494 (V) / 752 (H) x 582 (V)                           | 768 (H) x 494 (V) / 752 (H) x 582 (V)                          |
| Scanning Area                                    | 0.19-inch (H) x 0.14-inch (V) (4.8 x 3.6 mm)                                                                     | 0.19-inch (H) x 0.15-inch (V) (4.9 x 3.7 mm)                    | 0.19-inch (H) x 0.15-inch (V) (4.9 x 3.7 mm)                   |
| Scanning System                                  | 2:1 interlace                                                                                                    | 2:1 interlace                                                   | 2:1 interlace                                                  |
| Scanning Lines (NTSC / PAL)                      | 525 lines / 625 lines                                                                                            | 525 lines / 625 lines                                           | 525 lines / 625 lines                                          |
| Scanning Frequency                               |                                                                                                                  |                                                                 |                                                                |
| NTSC                                             | Horizontal, 15.734 kHz<br>vertical, 59.94 Hz                                                                     | Horizontal, 15.734 kHz<br>vertical, 59.94 Hz                    | Horizontal, 15.734 kHz<br>vertical, 59.94 Hz                   |
| PAL                                              | Horizontal, 15.625 kHz<br>vertical, 50.00 Hz                                                                     | Horizontal, 15.625 kHz<br>vertical, 50.00 Hz                    | Horizontal, 15.625 kHz<br>vertical, 50.00 Hz                   |
| Synchronization                                  | Internal<br>LL (phase adjustable power supply synchronization)                                                   | Internal                                                        | Internal                                                       |
| Horizontal Resolution                            | 650 TV lines, typical (color mode)<br>700 TV lines or more (B-W mode)                                            | 540 TV lines (color mode, at center)<br>570 TV lines (B-W mode) | 540 TV lines (at center)                                       |
| Minimum Illumination                             | 0.1 lux (color mode)<br>0.003 lux (sensitivity up x32)<br>0.01 lux (B-W mode)<br>0.0003 lux (sensitivity up x32) | 0.06 lux (color mode)<br>0.05 lux (B-W mode)                    | 0.6 lux (color mode)<br>0.4 lux (B-W mode)                     |
| Dynamic Range                                    | 54 dB/128X                                                                                                       | Adaptive Black Stretch                                          | Adaptive Black Stretch                                         |
| Day/Night Type                                   | IR filter removal                                                                                                | IR filter removal                                               | Simple                                                         |
| Video Output                                     | 1.0 Vp-p, NTSC/PAL composite, 75 ohms,<br>BNC connector                                                          | 1.0 Vp-p, NTSC/PAL composite, 75 ohms,<br>BNC connector         | 1.0 Vp-p, NTSC/PAL composite, 75 ohms, BNC<br>connector        |
| White Balance                                    | Auto tracking white balance/automatic white<br>balance control                                                   | Auto tracking white balance/automatic white<br>balance control  | Auto tracking white balance/automatic white<br>balance control |
| Signal-to-Noise Ratio                            | 50 dB (equivalent to AGC Off, weight On)                                                                         | 50 dB (equivalent to AGC Off, weight On)                        | 50 dB (equivalent to AGC Off, weight On)                       |
| Lens                                             | 2X varifocal lens                                                                                                | 3.6X varifocal lens                                             | 3.6X varifocal lens                                            |
| Focal Length                                     | 3.8 ~ 8.0 mm                                                                                                     | 2.8 ~ 10.0 mm                                                   | 2.8 ~ 10.0 mm                                                  |
| F-Number                                         | f/1.4 (wide) to f/1.8 (tele)                                                                                     | f/1.3 (wide) to f/3.1 (tele)                                    | f/1.3 (wide) to f/3.1 (tele)                                   |
| Focus Range                                      | x to 3.9 ft (1.2 m)                                                                                              | x to 3.9 ft (1.2 m)                                             | x to 3.9 ft (1.2 m)                                            |
| Angle of View                                    |                                                                                                                  |                                                                 |                                                                |
| Horizontal                                       | 73.6° wide zoom; 35.6° telephoto zoom                                                                            | 100.2° wide zoom; 27.4° telephoto zoom                          | 100.2° wide zoom; 27.4° telephoto zoom                         |
| Vertical                                         | 53.4° wide zoom; 26.6° telephoto zoom                                                                            | 73.3° wide zoom; 20.3° telephoto zoom                           | 73.3° wide zoom; 20.3° telephoto zoom                          |
| Adjusting Angle (Pan   Tilt  <br>Rotation Range) | +/-170°   +/-75°   +/-100°                                                                                       | +180° to -140°   +/-75°   +/-100°                               | +180° to -140°   +/-75°   +/-100°                              |
| Power                                            | 24 VAC or 12 VDC operation, autosensing                                                                          | 24 VAC or 12 VDC operation, autosensing                         | 24 VAC or 12 VDC operation, autosensing                        |
| Certifications                                   | CE Class A; FCC Class A; UL/cUL Listed; C-Tick                                                                   | CE Class A; FCC Class A; UL/cUL Listed; C-Tick                  | CE Class A; FCC Class A; UL/cUL Listed; C-Tick                 |

## Analog box cameras

Pelco has phased out all existing C10 Series cameras — upgrading the line with the all-new C20 Series analog box cameras. But the C20 Series represents much more than a simple upgrade. At 700 TV lines, the C20 Series are the highest resolution, most full-featured and affordable CCTV cameras available. These new cameras offer color, day/night, and WDR capabilities typically reserved for much more expensive video security systems.

| C20 Series                    |                                                                                                                                      |                                                                                        |                                                                                                                                      |
|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
|                               |                                                     |      |                                                   |
|                               | C20-CH-6(6X)(7X)                                                                                                                     | C20-DN-6X (7X)(PAL only)                                                               | C20-DW-6(6X)(7X)                                                                                                                     |
| Image Sensor                  | Sony® 1/3-inch EXview HAD CCD II™ 960H                                                                                               | Sony 1/3-inch EXview HAD CCD II 960H                                                   | Sony 1/3-inch EXview HAD CCD II 960H                                                                                                 |
| Signal Processing             | Sony new digital signal processor, Effio-E™                                                                                          | Sony new digital signal processor, Effio-E                                             | Sony new digital signal processor, Effio-E                                                                                           |
| Effective Pixels (NTSC / PAL) | 976 (H) x 494 (V), approx. 480k / 976 (H) x 582 (V), approx. 570k                                                                    | 976 (H) x 582 (V), approx. 570k (PAL only)                                             | 976 (H) x 494 (V), approx. 480k / 976 (H) x 582 (V), approx. 570k                                                                    |
| Sensing Area                  | 3/16 x 1/8-inch (4.7 x 3.5 mm)                                                                                                       | 1/3 inch - 3/16 x 1/8-inch (4.7 x 3.5 mm)                                              | 1/3 inch - 3/16 x 1/8-inch (4.7 x 3.5 mm)                                                                                            |
| Scanning System               | 2:1 interlace                                                                                                                        | 2:1 interlace                                                                          | 2:1 interlace                                                                                                                        |
| Scanning Lines (NTSC / PAL)   | 525 lines / 625 lines                                                                                                                | 625 lines / 625 lines                                                                  | 525 lines / 625 lines                                                                                                                |
| Synchronization System        | Internal                                                                                                                             | Internal                                                                               | AC line lock/Internal                                                                                                                |
| Horizontal Resolution         | 650 TV lines                                                                                                                         | 650 TV lines                                                                           | 650 TV lines                                                                                                                         |
| Auto Iris Lens Type           | DC drive                                                                                                                             | DC drive                                                                               | DC drive                                                                                                                             |
| Sensitivity                   | 0.25 lux, f/1.2, 30 IRE                                                                                                              | Color 0.13 lux, f/1.2, 30 IRE/Mono 0.05 lux, f/1.2, 30 IRE                             | Color 0.13 lux, f/1.2, 30 IRE/Mono 0.05 lux, f/1.2, 30 IRE                                                                           |
| Signal-to-Noise Ratio         | 48 dB (> 52 dB by parameter adjustment)                                                                                              | 48 dB (> 52 dB by parameter adjustment)                                                | 49 dB (> 52 dB by parameter adjustment)                                                                                              |
| Automatic Gain Control        | On/off 35 dB                                                                                                                         | On/off 35 dB                                                                           | Off/on up to 36 dB, 16 levels configurable                                                                                           |
| Backlight Compensation        | Yes                                                                                                                                  | Yes                                                                                    | Yes                                                                                                                                  |
| White Balance                 | ATW/push lock/manual/anti-CR/user2/user/push                                                                                         | ATW/push lock/manual/anti-CR/user2/user/push                                           | ATW/push lock/manual/anti-CR/user2/user/push                                                                                         |
| Color Correction              | With White Balance                                                                                                                   | With White Balance                                                                     | White Balance                                                                                                                        |
| Gamma                         | Selectable (ATR)                                                                                                                     | Selectable (ATR)                                                                       | Selectable (ATR)                                                                                                                     |
| Video Output                  | 1 Vp-p, 75 ohms                                                                                                                      | 1 Vp-p, 75 ohms                                                                        | 2 Vp-p, 75 ohms                                                                                                                      |
| Auto White Balance Range      | 2,500° to 9,500°K                                                                                                                    | 2,500° to 9,500°K                                                                      | 2,500° to 9,500°K                                                                                                                    |
| Noise Reduction-DNR 2D        | 2D                                                                                                                                   | 2D                                                                                     | 3D                                                                                                                                   |
| Privacy Zones                 | Yes                                                                                                                                  | Yes                                                                                    | Yes, 15 sizable windows                                                                                                              |
| Motion Detection              | Yes                                                                                                                                  | Yes                                                                                    | Yes, four areas, sensitivity selectable                                                                                              |
| Camera Titles                 | Yes                                                                                                                                  | Yes                                                                                    | Yes, up to 20 characters                                                                                                             |
| Power Requirement             | 12 VDC/24 VAC +10% to -15%, 60 Hz (C20-CH-6); 12 VDC/24 VAC +10% to -15%, 50 Hz (C20-CH-6X); 220 VAC +10% to -15%, 50 Hz (C20-CH-7X) | 12 VDC/24 VAC +10% to -15%, 50 Hz (C20-DN-6X); 220 VAC +10% to -15%, 50 Hz (C20-DN-7X) | 12 VDC/24 VAC +10% to -15%, 60 Hz (C20-DW-6); 12 VDC/24 VAC +10% to -15%, 50 Hz (C20-DW-6X); 220 VAC +10% to -15%, 50 Hz (C20-DW-7X) |
| Power Consumption             | 3.5 W (C20-CH-6/C20-CH-6X); 4W (C20-CH-7X)                                                                                           | 4 W (C20-DN-6X); 5W (C20-DN-7X)                                                        | 4.5 W (C20-DW-6/C20-DW-6X); 5.5 W (C20-DW-7X)                                                                                        |
| Dimensions (includes BNC)     | 108 x 60 x 55 mm (4.25" L x 2.36" W x 2.17" H)                                                                                       | 109 x 60 x 55 mm (4.25" L x 2.36" W x 2.17" H)                                         | 109 x 60 x 55 mm (4.25" L x 2.36" W x 2.17" H)                                                                                       |
| Certifications                | CE Class B; FCC Class B; UL/cUL Listed                                                                                               | CE Class B                                                                             | CE Class B                                                                                                                           |

## Analog bullet cameras with IR

Offering the most feature-rich, highest-resolution analog performance available with IR capabilities, these new bullet cameras are built for quick, easy setup and years of reliable performance. Choose from a wide selection of long- and short-range infrared illumination options and capture clear images in most any low-light or no-light condition.

### BU Series



**BU4-IRF-4(X)**



**BU5-IRV12-6(X)**



**BU6-IRWV50-6(X)**

|                                               |                                                                       |                                                                                   |                                                                                                                               |
|-----------------------------------------------|-----------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|
| Image Sensor                                  | Sony 1/3-inch Super HAD CCD™                                          | Sony 1/3-Inch EXview CCD II 960H                                                  | Sony 1/3-inch Super HAD CCD II 960H                                                                                           |
| Signal Processing                             | NextChip DSP                                                          | Sony DSP Effio-E                                                                  | Sony DSP Effio-P™                                                                                                             |
| Effective Pixels (NTSC / PAL)                 | 768 (H) x 494 (V), approx. 380k / 752 (H) x 582 (V), approx. 440k     | 976 (H) x 494 (V), approx. 480k / 976 (H) x 582 (V), approx. 570k"                | 976 (H) x 494 (V), approx. 480k / 976 (H) x 582 (V), approx. 570k"                                                            |
| Sensing Area                                  | 5.6 (H) mm x 4.7 (V) mm (0.22 x 0.19 inch)                            | 4.7 (H) mm x 3.5 (V) mm (0.19 x 0.14 inch)                                        | 4.7 (H) mm x 3.5 (V) mm (0.19 x 0.14 inch)                                                                                    |
| Scanning System                               | 2:1 interlace                                                         | 2:1 interlace                                                                     | 2:1 interlace                                                                                                                 |
| Scanning Lines (NTSC / PAL)                   | 525 lines / 625 lines                                                 | 525 lines / 625 lines                                                             | 525 lines / 625 lines                                                                                                         |
| Scanning Frequency (NTSC)                     | Horizontal, 15.734 kHz<br>vertical, 59.94 Hz                          | Horizontal, 15.734 kHz<br>vertical, 59.94 Hz                                      | Horizontal, 15.734 kHz<br>vertical, 59.94 Hz                                                                                  |
| Scanning Frequency (PAL)                      | Horizontal, 15.625 kHz<br>vertical, 50.00 Hz                          | Horizontal, 15.625 kHz<br>vertical, 50.00 Hz                                      | Horizontal, 15.625 kHz<br>vertical, 50.00 Hz                                                                                  |
| Synchronization System                        | Internal                                                              | Internal                                                                          | Internal                                                                                                                      |
| Horizontal Resolution                         | 540 TV lines                                                          | 650 TV lines                                                                      | 650 TV lines                                                                                                                  |
| Minimum Illumination                          | f/2.0; 2,850°K; 30 IRE                                                | f/2.0; 2,850°K; 30 IRE                                                            | f/1.6; 2,850°K; 30 IRE;                                                                                                       |
| Signal-to-Noise Ratio                         | 48 dB                                                                 | 48 dB (> 52 dB by parameter adjustment)                                           | 48 dB (> 52 dB by parameter adjustment)                                                                                       |
| IR Cut Filter                                 | Dual band OLPF                                                        | Yes, D/N switch                                                                   | Yes, D/N switch                                                                                                               |
| IR Illumination Distance                      | 15 m                                                                  | 25 m                                                                              | 40 m                                                                                                                          |
| IR Sensitivity                                | >40% at 850 nm, peak response                                         | >40% at 850 nm, peak response                                                     | >40% at 850 nm, peak response                                                                                                 |
| Electronic Shutter Range (NTSC / PAL)         | Auto, 1/60 ~ 1/10,000 sec (NTSC) /<br>Auto, 1/50 ~ 1/10,000 sec (PAL) | Auto/Manual 1/60 ~ 1/10,000 sec (NTSC) /<br>Auto/Manual 1/50 ~ 1/10,000 sec (PAL) | Auto, 1/60 ~ 1/10,000 sec; Manual, 1/60 ~ 1/100,000 sec (NTSC) / Auto, 1/50 ~ 1/10,000 sec; Manual, 1/50 ~ 1/10,000 sec (PAL) |
| Video Output                                  | 1 Vp-p, 75 ohms                                                       | 1 Vp-p, 75 ohms                                                                   | 1 Vp-p, 75 ohms                                                                                                               |
| Auto White Balance Range                      | 2,500° to 9,500°K                                                     | 2,500° to 9,500°K                                                                 | 2,000° to 10,000°K                                                                                                            |
| White Balance                                 | ATW/push lock/manual/anti-CR/user2/user/push                          | ATW/Manual/Push/Push lock/User1/User2/Anti CR                                     | ATW/Manual/Push/Push lock/User1/User2/Anti CR                                                                                 |
| Noise Reduction                               | 2D                                                                    | 2D                                                                                | 3D                                                                                                                            |
| Privacy Zones                                 | Yes                                                                   | Yes                                                                               | Yes                                                                                                                           |
| Motion Detection                              | Yes                                                                   | Yes                                                                               | Yes                                                                                                                           |
| Camera Titles                                 | Yes                                                                   | Yes                                                                               | Yes                                                                                                                           |
| Lens                                          | Fixed                                                                 | Varifocal                                                                         | Varifocal                                                                                                                     |
| Focal Length                                  | 3.6 mm                                                                | 3.3 to 12 mm                                                                      | 6 to 50 mm                                                                                                                    |
| F-Number                                      | f/2.0                                                                 | f/1.4                                                                             | f/1.6                                                                                                                         |
| Focus Range                                   | ∞ to 1.2 m (3.9 ft)                                                   | ∞ to 0.5 m (1.6 ft)                                                               | ∞ to 1.5 m (4.9 ft)                                                                                                           |
| Angle of View (Horizontal)                    | 72°                                                                   | 89.8° wide zoom; 23.9° telephoto zoom                                             | 43.9° wide zoom; 5.7° telephoto zoom                                                                                          |
| Angle of View (Vertical)                      | 52°                                                                   | 63.6° wide zoom; 17.9° telephoto zoom                                             | 33.2° wide zoom; 4.3° telephoto zoom                                                                                          |
| Adjusting Angle (Pan   Tilt   Rotation Range) | ±180°   ±90°   ±360°                                                  | ±180°   ±90°   ±360°                                                              | ±180°   ±90°   ±360°                                                                                                          |
| Power Requirement (NTSC / PAL)                | 12 VDC ±10%, 60 Hz / 12 VDC ±10%, 50 Hz                               | 12 VDC/24 VAC +10% to -15%, 60 Hz / 12 VDC/24 VAC +10% to -15%, 50 Hz             | 12 VDC/24 VAC +10% to -15%, 60 Hz / 12 VDC/24 VAC +10% to -15%, 50 Hz                                                         |
| Power Consumption                             | 3 W (IR on, without heater);<br>8 W (IR on, with heater on)           | 7 W (IR on, without heater);<br>50 W (IR on, with heater on)                      | 7.5 W (IR on, without heater);<br>22.5 W (IR on, with heater on)                                                              |
| Certifications                                | CE Class B; FCC Class B; UL/cUL Listed;<br>meets IP66 standards       | CE Class B; FCC Class B; UL/cUL Listed;<br>meets IP66 standards                   | CE Class B; FCC Class B; UL/cUL Listed;<br>meets IP66 standards                                                               |

## Analog mini domes with IR options

The all-new FD Series of compact, color CCD fixed dome cameras offers full-featured, high-resolution analog performance at an affordable price. Choose models with infrared illumination to capture clear images in low-light or no-light conditions. Wall mount or ceiling mount ready, these integrated dome cameras are ideal for protecting a wide range of indoor as well as rugged, outdoor environments.

| FD1 Series                                       |                                                                                   |                                                                                    |                                                                                     |
|--------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                                                  |  |  |  |
|                                                  | <b>FD1-F Series<br/>fixed lens models</b>                                         | <b>FD1-IRF Series IR Illumination<br/>fixed lens models</b>                        | <b>FD1-IRV Series IR Illumination<br/>varifocal lens models</b>                     |
| Image Sensor                                     | Sony 1/3-inch SuperHAD CCD II™ 760H                                               | Sony 1/3-inch SuperHAD CCD II 760H                                                 | Sony 1/3-inch SuperHAD CCD II 760H                                                  |
| Signal Processing                                | NextChip DSP                                                                      | NextChip DSP                                                                       | NextChip DSP                                                                        |
| Effective Pixels NTSC / PAL                      | 768 (H) x 494 (V) / 752 (H) x 582 (V)                                             | 768 (H) x 494 (V) / 752 (H) x 582 (V)                                              | 768 (H) x 494 (V) / 752 (H) x 582 (V)                                               |
| Scanning Area                                    | 5.59 (H) mm x 4.68 (V) mm<br>(0.22 x 0.18 inch)                                   | 5.59 (H) mm x 4.68 (V) mm<br>(0.22 x 0.18 inch)                                    | 5.59 (H) mm x 4.68 (V) mm<br>(0.22 x 0.18 inch)                                     |
| Scanning System                                  | 2:1 interlace                                                                     | 2:1 interlace                                                                      | 2:1 interlace                                                                       |
| Scanning Lines (NTSC / PAL)                      | 525 lines / 625 lines                                                             | 525 lines / 625 lines                                                              | 525 lines / 625 lines                                                               |
| Scanning Frequency (NTSC)                        | Horizontal, 15.734 kHz; vertical, 59.94 Hz                                        | Horizontal, 15.734 kHz; vertical, 59.94 Hz                                         | Horizontal, 15.734 kHz; vertical, 59.94 Hz                                          |
| Scanning Frequency (PAL)                         | Horizontal, 15.625 kHz; vertical, 50.00 Hz                                        | Horizontal, 15.625 kHz; vertical, 50.00 Hz                                         | Horizontal, 15.625 kHz; vertical, 50.00 Hz                                          |
| Synchronization                                  | Internal                                                                          | Internal                                                                           | Internal                                                                            |
| Horizontal Resolution                            | 540 TVL                                                                           | 540 TVL                                                                            | 540 TVL                                                                             |
| Minimum Illumination                             | f/2.0; 2,850°K; 30 IRE Color 0.2 lux                                              | f/2.0; 2,850°K; 30 IRE Color 0.2 lux Mono (with IR)<br>0.0 lux                     | f/1.2; 2,850°K; 30 IRE Color 0.13 lux Mono (with IR)<br>0.0 lux                     |
| IR Cut Filter                                    | Fixed                                                                             | Dual band OLPF                                                                     | Dual band OLPF                                                                      |
| IR Illumination Distance                         | —                                                                                 | 15 m                                                                               | 20 m                                                                                |
| IR Sensitivity                                   | —                                                                                 | > 40% at 850 nm, peak response                                                     | > 40% at 850 nm, peak response                                                      |
| Low-Light Technology                             | —                                                                                 | LEDs                                                                               | LEDs                                                                                |
| Shutter NTSC/PAL                                 | Auto 1/60 ~ 1/10,000 sec<br>Auto 1/50 ~ 1/10,000 sec"                             | Auto 1/60 ~ 1/10,000 sec<br>Auto 1/50 ~ 1/10,000 sec                               | Auto 1/60 ~ 1/10,000 sec<br>Auto 1/50 ~ 1/10,000 sec                                |
| Video Output                                     | 1.0 Vp-p, NTSC/PAL composite, 75 ohms, BNC connector                              | 1.0 Vp-p, NTSC/PAL composite, 75 ohms, BNC connector                               | 1.0 Vp-p, NTSC/PAL composite, 75 ohms, BNC connector                                |
| White Balance                                    | Auto                                                                              | Auto                                                                               | Auto                                                                                |
| Signal-to-Noise Ratio                            | 48 dB (> 52 dB by parameter adjustment)                                           | 48 dB (> 52 dB by parameter adjustment)                                            | 48 dB (> 52 dB by parameter adjustment)                                             |
| Lens                                             | Fixed                                                                             | Fixed                                                                              | Varifocal                                                                           |
| F-Number                                         | f/2.0                                                                             | f/2.0                                                                              | f/1.2                                                                               |
| Focal Length                                     | 3.6 mm                                                                            | 3.6 mm                                                                             | 3.0 to 9.0 mm, DC AI                                                                |
| Focus Range                                      | ∞ to 1.2 m (3.9 ft)                                                               | ∞ to 1.2 m (3.9 ft)                                                                | ∞ to 0.5 m (1.6 ft)                                                                 |
| Horizontal Angle of View                         | 72° at 3.6 mm                                                                     | 72°                                                                                | 85.3° at 3.0 mm wide zoom;<br>31.5° at 9.0 mm telephoto zoom                        |
| Vertical Angle of View                           | 52° at 3.6 mm                                                                     | 52°                                                                                | 63.8° at 3.0 mm wide zoom;<br>23.7° at 9.0 mm telephoto zoom                        |
| Adjusting Angle<br>(Pan   Tilt   Rotation Range) | ±180°   +80° to 0°   0°                                                           | ±180°   +55° to 0°   ±180°                                                         | ±180°   +55° to 0°   ±180°                                                          |
| Noise Reduction                                  | 2D                                                                                | 2D                                                                                 | 2D                                                                                  |
| Power Requirement<br>(NTSC / PAL)                | 12 VDC +10% to -15%, 60 Hz (NTSC) /<br>12 VDC +10% to -15%, 50 Hz (PAL)           | 12 VDC +10% to -15%, 60 Hz (NTSC) /<br>12 VDC +10% to -15%, 50 Hz (PAL)            | 12 VDC +10% to -15%, 60 Hz (NTSC) /<br>12 VDC +10% to -15%, 50 Hz (PAL)             |
| Power Consumption                                | 1 W                                                                               | 2.7 W                                                                              | 2.7 W                                                                               |
| Certifications                                   | CE; Class B; FCC; Class B; UL/cUL Listed                                          | CE; Class B; FCC; Class B; UL/cUL Listed                                           | CE; Class B; FCC; Class B; UL/cUL Listed                                            |

## Analog mini domes with IR options

The all-new FD Series of compact, color CCD fixed dome cameras offers full-featured, high-resolution analog performance at an affordable price. Choose models with infrared illumination to capture clear images in low-light or no-light conditions. Wall mount or ceiling mount ready, these integrated dome cameras are ideal for protecting a wide range of indoor as well as rugged, outdoor environments.

| FD2 Series                                       |                                                                                                                        |                                                                                                                            |                                                                                                                                               |                                                                                                                                                   |                                                                                                                                                                                             |
|--------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                  | <br>FD2-F Series<br>fixed lens models | <br>FD2-V Series<br>varifocal lens models | <br>FD2-DV Series<br>true day/night<br>varifocal lens models | <br>FD2-IRV Series IR<br>illumination varifocal lens<br>models | <br>FD2-DWV Series<br>true day/night, WDR,<br>DSS varifocal lens models                                  |
| Image Sensor                                     | Sony 1/3-inch EXview HAD CCD II 960H                                                                                   | Sony 1/3-inch EXview HAD CCD II 960H                                                                                       | Sony 1/3-inch EXview HAD CCD II 960H                                                                                                          | Sony 1/3-inch EXview HAD CCD II 960H                                                                                                              | Sony 1/3-inch EXview HAD CCD II 960H                                                                                                                                                        |
| Signal Processing                                | Sony DSP, Effio-E                                                                                                      | Sony DSP, Effio-E                                                                                                          | Sony DSP, Effio-E                                                                                                                             | Sony DSP, Effio-E                                                                                                                                 | Sony DSP, Effio-P                                                                                                                                                                           |
| Effective Pixels<br>NTSC/PAL                     | 976 (H) x 494 (V)<br>976 (H) x 582 (V)                                                                                 | 976 (H) x 494 (V)<br>976 (H) x 582 (V)                                                                                     | 976 (H) x 494 (V)<br>976 (H) x 582 (V)                                                                                                        | 976 (H) x 494 (V)<br>976 (H) x 582 (V)                                                                                                            | 976 (H) x 494 (V)<br>976 (H) x 582 (V)                                                                                                                                                      |
| Scanning Area                                    | 5.58 (H) mm x 4.67 (V) mm<br>(0.22 x 0.18 inch)                                                                        | 5.58 (H) mm x 4.67 (V) mm<br>(0.22 x 0.18 inch)                                                                            | 5.58 (H) mm x 4.67 (V) mm<br>(0.22 x 0.18 inch)                                                                                               | 5.58 (H) mm x 4.67 (V) mm<br>(0.22 x 0.18 inch)                                                                                                   | 6.0 (H) mm x 5.0 (V) mm<br>(0.24 x 0.20 inch)                                                                                                                                               |
| Scanning System                                  | 2:1 interlace                                                                                                          | 2:1 interlace                                                                                                              | 2:1 interlace                                                                                                                                 | 2:1 interlace                                                                                                                                     | 2:1 interlace                                                                                                                                                                               |
| Scanning Lines<br>(NTSC / PAL)                   | 525 lines / 625 lines                                                                                                  | 525 lines / 625 lines                                                                                                      | 525 lines / 625 lines                                                                                                                         | 525 lines / 625 lines                                                                                                                             | 525 lines / 625 lines                                                                                                                                                                       |
| Scanning Frequency<br>(NTSC)                     | Horizontal, 15.734 kHz;<br>vertical, 59.94 Hz                                                                          | Horizontal, 15.734 kHz;<br>vertical, 59.94 Hz                                                                              | Horizontal, 15.734 kHz;<br>vertical, 59.94 Hz                                                                                                 | Horizontal, 15.734 kHz;<br>vertical, 59.94 Hz                                                                                                     | Horizontal, 15.734 kHz;<br>vertical, 59.94 Hz                                                                                                                                               |
| Scanning Frequency<br>(PAL)                      | Horizontal, 15.625 kHz;<br>vertical, 50.00 Hz                                                                          | Horizontal, 15.625 kHz;<br>vertical, 50.00 Hz                                                                              | Horizontal, 15.625 kHz;<br>vertical, 50.00 Hz                                                                                                 | Horizontal, 15.625 kHz;<br>vertical, 50.00 Hz                                                                                                     | Horizontal, 15.625 kHz;<br>vertical, 50.00 Hz                                                                                                                                               |
| Synchronization                                  | Internal                                                                                                               | Internal                                                                                                                   | Internal                                                                                                                                      | Internal                                                                                                                                          | Internal                                                                                                                                                                                    |
| Horizontal Resolution                            | 650 TVL                                                                                                                | 650 TVL                                                                                                                    | 650 TVL                                                                                                                                       | 650 TVL                                                                                                                                           | 650 TVL                                                                                                                                                                                     |
| Minimum Illumination                             | f/2.0; 2,850°K; 30 IRE color<br>0.2 lux                                                                                | f/1.2; 2,850°K; 30 IRE color<br>0.1 lux; mono 0.05 lux                                                                     | f/1.2; 2,850°K; 30 IRE color<br>0.1 lux; mono 0.04 lux                                                                                        | f/1.2; 2,850°K; 30 IRE color<br>0.1 lux; mono (with IR) 0.0 lux                                                                                   | f/1.2; 2,850°K; 30 IRE<br>color (20 ms for PAL or 17 ms<br>for NTSC) 0.13 lux<br>color (500 ms) 0.03 lux<br>mono (20 ms for PAL or 17 ms<br>for NTSC) 0.05 lux<br>mono (500 ms) 0.00004 lux |
| IR Cut Filter                                    | Fixed                                                                                                                  | Fixed                                                                                                                      | Yes, D/N switch                                                                                                                               | Yes, D/N switch                                                                                                                                   | Yes, D/N switch                                                                                                                                                                             |
| Dynamic Range                                    | Gamma selectable (ATR)                                                                                                 | Gamma selectable (ATR)                                                                                                     | Gamma selectable (ATR)                                                                                                                        | Gamma selectable (ATR)                                                                                                                            | 120 dB dual-scan WDR                                                                                                                                                                        |
| IR Illumination Distance                         | —                                                                                                                      | —                                                                                                                          | —                                                                                                                                             | 25 m                                                                                                                                              | —                                                                                                                                                                                           |
| IR Sensitivity                                   | —                                                                                                                      | —                                                                                                                          | —                                                                                                                                             | > 40% at 850 nm, peak response                                                                                                                    | —                                                                                                                                                                                           |
| Low-Light Technology                             | Digital day/night                                                                                                      | Digital day/night                                                                                                          | ICR, digital day/night                                                                                                                        | ICR and LEDs, digital day/night                                                                                                                   | ICR, DSS                                                                                                                                                                                    |
| Shutter                                          | Auto/Manual 1/60 ~ 1/10,000 sec<br>Auto/Manual 1/50 ~ 1/10,000 sec                                                     | Auto/Manual 1/60 ~ 1/10,000 sec<br>Auto/Manual 1/50 ~ 1/10,000 sec                                                         | Auto/Manual 1/60 ~ 1/10,000 sec<br>Auto/Manual 1/50 ~ 1/10,000 sec                                                                            | Auto/Manual 1/60 ~ 1/10,000 sec<br>Auto/Manual 1/50 ~ 1/10,000 sec                                                                                | Auto/Manual 1/2 ~ 1/10,000 sec<br>Auto 1/1.5 ~ 1/10,000 sec<br>Manual 1/2 ~ 1/10,000 sec                                                                                                    |
| Video Output                                     | 1.0 Vp-p, NTSC/PAL composite,<br>75 ohms, BNC connector                                                                | 1.0 Vp-p, NTSC/PAL composite,<br>75 ohms, BNC connector                                                                    | 1.0 Vp-p, NTSC/PAL composite,<br>75 ohms, BNC connector                                                                                       | 1.0 Vp-p, NTSC/PAL composite,<br>75 ohms, BNC connector                                                                                           | 1.0 Vp-p, NTSC/PAL composite,<br>75 ohms, BNC connector                                                                                                                                     |
| White Balance                                    | ATW/manual/push/push lock/<br>user1/user2/anti CR                                                                      | ATW/manual/push/push lock/<br>user1/user2/anti CR                                                                          | ATW/manual/push/push lock/<br>user1/user2/anti CR                                                                                             | ATW/manual/push/push lock/<br>user1/user2/anti CR                                                                                                 | ATW/manual/push/push lock/<br>user1/user2/anti CR                                                                                                                                           |
| Signal-to-Noise Ratio                            | 48 dB (> 52 dB by parameter<br>adjustment)                                                                             | 48 dB (> 52 dB by parameter<br>adjustment)                                                                                 | 48 dB (> 52 dB by parameter<br>adjustment)                                                                                                    | 48 dB (> 52 dB by parameter<br>adjustment)                                                                                                        | 48 dB (> 52 dB by parameter<br>adjustment)                                                                                                                                                  |
| Lens                                             | Fixed                                                                                                                  | Varifocal                                                                                                                  | Varifocal                                                                                                                                     | Varifocal                                                                                                                                         | Varifocal                                                                                                                                                                                   |
| F-Number                                         | f/2.0                                                                                                                  | f/1.2                                                                                                                      | f/1.2                                                                                                                                         | f/1.2                                                                                                                                             | f/1.2                                                                                                                                                                                       |
| Focal Length                                     | 2.8 mm (FD2-F3 Series)<br>3.6 mm (FD2-F4 Series)                                                                       | 2.8 to 10.5 mm                                                                                                             | 2.8 to 10.5 mm                                                                                                                                | 2.8 to 10.5 mm                                                                                                                                    | 2.8 to 10.5 mm                                                                                                                                                                              |
| Focus Range                                      | ∞ to 1.2 m (3.9 ft)                                                                                                    | ∞ to 0.3 m (1 ft)                                                                                                          | ∞ to 0.3 m (1 ft)                                                                                                                             | ∞ to 0.3 m (1 ft)                                                                                                                                 | ∞ to 0.3 m (1 ft)                                                                                                                                                                           |
| Horizontal Angle of View                         | 90° at 2.8 mm (FD2-F3 Series)<br>72° at 3.6 mm (FD2-F4 Series)                                                         | 101.8° at 2.8 mm wide zoom;<br>27.4° at 10.5 mm telephoto zoom                                                             | 101.8° at 2.8 mm wide zoom;<br>27.4° at 10.5 mm telephoto zoom                                                                                | 101.8° at 2.8 mm wide zoom;<br>27.4° at 10.5 mm telephoto zoom                                                                                    | 101.8° at 2.8 mm wide zoom;<br>27.4° at 10.5 mm telephoto zoom                                                                                                                              |
| Vertical Angle of View                           | 80° at 2.8 mm (FD2-F3 Series)<br>52° at 3.6 mm (FD2-F4 Series)                                                         | 73.2° at 2.8 mm wide zoom;<br>20.6° at 10.5 mm telephoto zoom                                                              | 73.7° at 2.8 mm wide zoom;<br>20.6° at 10.5 mm telephoto zoom                                                                                 | 73.7° at 2.8 mm wide zoom;<br>20.6° at 10.5 mm telephoto zoom                                                                                     | 73.7° at 2.8 mm wide zoom;<br>20.6° at 10.5 mm telephoto zoom                                                                                                                               |
| Adjusting Angle (Pan  <br>Tilt   Rotation Range) | ±180°   +90° to 0°   ±180°                                                                                             | ±180°   +90° to 0°   ±180°                                                                                                 | ±180°   +90° to 0°   ±180°                                                                                                                    | ±180°   +55° to 0°   ±180°                                                                                                                        | ±180°   +90° to 0°   ±180°                                                                                                                                                                  |
| Noise Reduction                                  | 2D                                                                                                                     | Included (4 areas)                                                                                                         | 2D                                                                                                                                            | 2D                                                                                                                                                | 3D                                                                                                                                                                                          |
| Motion Detection                                 | Included (4 areas)                                                                                                     | Included (8 areas)                                                                                                         | Included (4 areas)                                                                                                                            | Included (4 areas)                                                                                                                                | Included (4 areas)                                                                                                                                                                          |
| Privacy Zones                                    | Included (8 areas)                                                                                                     | --                                                                                                                         | Included (8 areas)                                                                                                                            | Included (8 areas)                                                                                                                                | Included (15 sizeable windows)                                                                                                                                                              |
| Digital Zoom                                     | --                                                                                                                     | --                                                                                                                         | --                                                                                                                                            | --                                                                                                                                                | Included, 255X                                                                                                                                                                              |
| Image Stabilization                              | --                                                                                                                     | --                                                                                                                         | Included                                                                                                                                      | Included                                                                                                                                          | Included                                                                                                                                                                                    |
| Camera Titles                                    | --                                                                                                                     | --                                                                                                                         | Included                                                                                                                                      | Included                                                                                                                                          | Included                                                                                                                                                                                    |
| Scene Learning                                   | --                                                                                                                     | --                                                                                                                         | --                                                                                                                                            | --                                                                                                                                                | Included                                                                                                                                                                                    |
| Analytics                                        | --                                                                                                                     | --                                                                                                                         | --                                                                                                                                            | --                                                                                                                                                | Included                                                                                                                                                                                    |
| Remote Access                                    | --                                                                                                                     | --                                                                                                                         | --                                                                                                                                            | --                                                                                                                                                | Coaxitron™ and RS-485                                                                                                                                                                       |
| Alarm Out                                        | --                                                                                                                     | --                                                                                                                         | 1                                                                                                                                             | 1                                                                                                                                                 | 1                                                                                                                                                                                           |
| Power Requirement<br>(NTSC / PAL)                | 12 VDC / 24 VAC +10% to<br>-15%, 60 Hz (NTSC) / 12 VDC /<br>24 VAC +10% to -15%,<br>50 Hz (PAL)                        | 12 VDC / 24 VAC +10% to<br>-15%, 60 Hz (NTSC) / 12 VDC /<br>24 VAC +10% to -15%,<br>50 Hz (PAL)                            | 12 VDC / 24 VAC +10% to<br>-15%, 60 Hz (NTSC) / 12 VDC /<br>24 VAC +10% to -15%,<br>50 Hz (PAL)                                               | 12 VDC / 24 VAC +10% to<br>-15%, 60 Hz (NTSC) / 12 VDC /<br>24 VAC +10% to -15%,<br>50 Hz (PAL)                                                   | 12 VDC / 24 VAC +10% to<br>-15%, 60 Hz (NTSC) / 12 VDC /<br>24 VAC +10% to -15%,<br>50 Hz (PAL)                                                                                             |
| Power Consumption                                | 2.5 W                                                                                                                  | 2.5 W                                                                                                                      | 2.5 W                                                                                                                                         | 4 W                                                                                                                                               | 4.5                                                                                                                                                                                         |
| Certifications                                   | CE; Class B; FCC; Class B;<br>UL/cUL Listed                                                                            | CE; Class B; FCC; Class B;<br>UL/cUL Listed                                                                                | CE; Class B, FCC, Class B,<br>UL/cUL Listed                                                                                                   | CE; Class B, FCC, Class B,<br>UL/cUL Listed                                                                                                       | CE; Class B; FCC; Class B;<br>UL/cUL Listed                                                                                                                                                 |

## Analog mini domes with IR options

The all-new FD Series of compact, color CCD fixed dome cameras offers full-featured, high-resolution analog performance at an affordable price. Choose models with infrared illumination to capture clear images in low-light or no-light conditions. Wall-mount or ceiling-mount ready, these integrated dome cameras are ideal for protecting a wide range of indoor as well as rugged, outdoor environments.

| FD5 Series                                                        |                                                                                                                                    |                                                                                                                                                     |                                                                                                                                                        |
|-------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                   | <br><b>FD5-V Series<br/>varifocal lens models</b> | <br><b>FD5-DV Series True Day/Night<br/>varifocal lens models</b> | <br><b>FD5-IRV Series IR Illumination<br/>varifocal lens models</b> |
| Image Sensor                                                      | Sony 1/3-inch EXview HAD CCD II 960H                                                                                               | Sony 1/3-inch EXview HAD CCD II 960H                                                                                                                | Sony 1/3-inch EXview HAD CCD II 960H                                                                                                                   |
| Signal Processing                                                 | Sony DSP, Effio-E                                                                                                                  | Sony DSP, Effio-E                                                                                                                                   | Sony DSP, Effio-E                                                                                                                                      |
| Effective Pixels NTSC/PAL                                         | 976 (H) x 494 (V)<br>976 (H) x 582 (V)                                                                                             | 976 (H) x 494 (V)<br>976 (H) x 582 (V)                                                                                                              | 976 (H) x 494 (V)<br>976 (H) x 582 (V)                                                                                                                 |
| Scanning Area                                                     | 5.58 (H) mm x 4.67 (V) mm<br>(0.22 x 0.18 inch)                                                                                    | 5.58 (H) mm x 4.67 (V) mm<br>(0.22 x 0.18 inch)                                                                                                     | 5.58 (H) mm x 4.67 (V) mm<br>(0.22 x 0.18 inch)                                                                                                        |
| Scanning System                                                   | 2:1 interlace                                                                                                                      | 2:1 interlace                                                                                                                                       | 2:1 interlace                                                                                                                                          |
| Scanning Lines (NTSC / PAL)                                       | 525 lines / 625 lines                                                                                                              | 525 lines / 625 lines                                                                                                                               | 525 lines / 625 lines                                                                                                                                  |
| Scanning Frequency (NTSC)                                         | Horizontal, 15.734 kHz; vertical, 59.94 Hz                                                                                         | Horizontal, 15.734 kHz; vertical, 59.94 Hz                                                                                                          | Horizontal, 15.734 kHz; vertical, 59.94 Hz                                                                                                             |
| Scanning Frequency (PAL)                                          | Horizontal, 15.625 kHz; vertical, 50.00 Hz                                                                                         | Horizontal, 15.625 kHz; vertical, 50.00 Hz                                                                                                          | Horizontal, 15.625 kHz; vertical, 50.00 Hz                                                                                                             |
| Synchronization                                                   | Internal                                                                                                                           | Internal                                                                                                                                            | Internal                                                                                                                                               |
| Horizontal Resolution                                             | 650 TVL                                                                                                                            | 650 TVL                                                                                                                                             | 650 TVL                                                                                                                                                |
| Minimum Illumination                                              | f/1.2; 2,850°K; 30 IRE color 0.1 lux<br>mono 0.05 lux                                                                              | f/1.2; 2,850°K; 30 IRE color 0.1 lux<br>mono 0.04 lux                                                                                               | f/1.2; 2,850°K; 30 IRE color 0.1 lux<br>mono 0.0 lux                                                                                                   |
| IR Cut Filter                                                     | Fixed                                                                                                                              | Yes, D/N switch                                                                                                                                     | Yes, D/N switch                                                                                                                                        |
| Dynamic Range                                                     | Gamma selectable (ATR)                                                                                                             | Gamma selectable (ATR)                                                                                                                              | Gamma selectable (ATR)                                                                                                                                 |
| IR Illumination Distance                                          | —                                                                                                                                  | —                                                                                                                                                   | 25 m                                                                                                                                                   |
| IR Sensitivity                                                    | —                                                                                                                                  | —                                                                                                                                                   | > 40% at 850 nm, peak response                                                                                                                         |
| Low-Light Technology                                              | —                                                                                                                                  | ICR                                                                                                                                                 | ICR and LEDs                                                                                                                                           |
| Shutter                                                           | 1/50 ~ 1/10,000 sec                                                                                                                | 1/50 ~ 1/10,000 sec                                                                                                                                 | 1/50 ~ 1/10,000 sec                                                                                                                                    |
| Video Output                                                      | 1.0 Vp-p, NTSC/PAL composite, 75 ohms,<br>BNC connector                                                                            | 1.0 Vp-p, NTSC/PAL composite, 75 ohms,<br>BNC connector                                                                                             | 1.0 Vp-p, NTSC/PAL composite, 75 ohms,<br>BNC connector                                                                                                |
| White Balance                                                     | ATW/manual/push/push<br>Lock/user1/user2/anti CR                                                                                   | ATW/manual/push/push<br>Lock/user1/user3/anti CR                                                                                                    | ATW/manual/push/push<br>Lock/user1/user4/anti CR                                                                                                       |
| Signal-to-Noise Ratio                                             | 48 dB (> 52 dB by parameter adjustment)                                                                                            | 48 dB (> 52 dB by parameter adjustment)                                                                                                             | 48 dB (> 52 dB by parameter adjustment)                                                                                                                |
| Lens                                                              | Varifocal                                                                                                                          | Varifocal                                                                                                                                           | Varifocal                                                                                                                                              |
| F-Number                                                          | f/1.2                                                                                                                              | f/1.2                                                                                                                                               | f/1.2                                                                                                                                                  |
| Focal Length                                                      | 3.0 to 9.0 mm                                                                                                                      | 2.8 to 10.5 mm                                                                                                                                      | 2.8 to 10.5 mm                                                                                                                                         |
| Focus Range                                                       | ∞ to 0.5 m (1.6 ft)                                                                                                                | ∞ to 0.3 m (1 ft)                                                                                                                                   | ∞ to 0.3 m (1 ft)                                                                                                                                      |
| Horizontal Angle of View                                          | 85.3° at 3.0 mm wide zoom;<br>31.5° at 9.0 mm telephoto zoom                                                                       | 101.8° at 2.8 mm wide zoom;<br>27.4° at 10.5 mm telephoto zoom                                                                                      | 101.8° at 2.8 mm wide zoom;<br>27.4° at 10.5 mm telephoto zoom                                                                                         |
| Vertical Angle of View                                            | 63.8° at 3.0 mm wide zoom;<br>23.7° at 9.0 mm telephoto zoom                                                                       | 73.7° at 2.8 mm wide zoom;<br>20.6° at 10.5 mm telephoto zoom                                                                                       | 73.7° at 2.8 mm wide zoom;<br>20.6° at 10.5 mm telephoto zoom                                                                                          |
| Adjusting Angle<br>Panning Range/Tilting Range/<br>Rotation Range | ±180°<br>+90° to 0°<br>±180°                                                                                                       | ±180°<br>+90° to 0°<br>±180°                                                                                                                        | ±180°<br>+55° to 0°<br>±180°                                                                                                                           |
| Noise Reduction                                                   | 2D                                                                                                                                 | 2D                                                                                                                                                  | 2D                                                                                                                                                     |
| Motion Detection                                                  | Included (4 areas)                                                                                                                 | Included (4 areas)                                                                                                                                  | Included (4 areas)                                                                                                                                     |
| Privacy Zones                                                     | Included (8 zones)                                                                                                                 | Included (8 zones)                                                                                                                                  | Included (8 zones)                                                                                                                                     |
| Camera Titles                                                     | —                                                                                                                                  | Included                                                                                                                                            | Included                                                                                                                                               |
| Alarm Out                                                         | —                                                                                                                                  | 1                                                                                                                                                   | 1                                                                                                                                                      |
| Power Requirement<br>(NTSC / PAL)                                 | 12 VDC / 24 VAC +10% to -15%, 60 Hz (NTSC) /<br>12 VDC / 24 VAC +10% to -15%, 50 Hz (PAL)                                          | 12 VDC / 24 VAC +10% to -15%, 60 Hz (NTSC) /<br>12 VDC / 24 VAC +10% to -15%, 50 Hz (PAL)                                                           | 12 VDC / 24 VAC +10% to -15%, 60 Hz (NTSC) /<br>12 VDC / 24 VAC +10% to -15%, 50 Hz (PAL)                                                              |
| Power Consumption                                                 | 2.5 W (without heater); 43 (with heater on)                                                                                        | 2.5 W (without heater); 43 (with heater on)                                                                                                         | 4 W (without heater); 47 (with heater on)                                                                                                              |
| Certifications                                                    | CE; Class B; FCC; Class B; UL/cUL Listed;<br>meets IP66 standards                                                                  | CE; Class B; FCC; Class B; UL/cUL Listed;<br>meets IP66 standards                                                                                   | CE; Class B; FCC; Class B; UL/cUL Listed;<br>meets IP66 standards                                                                                      |

## Monitors

Pelco offers a complete array of viewing solutions to deliver the best image in the industry. Backed by a three-year warranty, Pelco viewing solutions offer rigorous construction and optimized thermal management to ensure the reliability and long-life operation that video security professionals demand.

| 300 Series desktop                                                                |                                                         | 400 Series desktop                                                                  |  |
|-----------------------------------------------------------------------------------|---------------------------------------------------------|-------------------------------------------------------------------------------------|--|
|  |                                                         |  |  |
| PMCL317B and PMCL319BL                                                            |                                                         | PMCL417HB and PMCL419HB                                                             |  |
| GENERAL                                                                           |                                                         |                                                                                     |  |
| Native Resolution                                                                 | 1280x1024                                               | 1280x1024                                                                           |  |
| Brightness                                                                        | 250 nit                                                 | 350 nit                                                                             |  |
| Contrast Ratio                                                                    | 1000:1                                                  | 1000:4                                                                              |  |
| Response Time                                                                     | 5 ms                                                    | 5 ms                                                                                |  |
| Panel Life                                                                        | 50K hours                                               | 50K hours                                                                           |  |
| Viewing Angle                                                                     | 160/160                                                 | 160/160                                                                             |  |
| Aspect Ratio                                                                      | 5:4                                                     | 5:4                                                                                 |  |
| ELECTRICAL                                                                        |                                                         |                                                                                     |  |
| Power Consumption                                                                 | < 50 W                                                  | < 50 W                                                                              |  |
| Input Voltage                                                                     | 100 to 240 VAC, 50/60 Hz                                | 100 to 240 VAC, 50/60 Hz                                                            |  |
| Video Input                                                                       | 1 BNC, looping: 1 S-Video, looping: 1 RGB: 1 DVI        | 2 BNC, looping: 1 S-Video, looping: 1 RGB: 1 DVI                                    |  |
| ENVIRONMENTAL                                                                     |                                                         |                                                                                     |  |
| Operating Temperature                                                             | 0 – 40 °C                                               | 0 – 40 °C                                                                           |  |
| Operating Humidity                                                                | 20% – 80% non-condensing                                | 20% – 80% non-condensing                                                            |  |
| PHYSICAL                                                                          |                                                         |                                                                                     |  |
| Unit Weight                                                                       | 10.8 lbs (17"), 12.6 lbs (19")                          | 10.8 lbs (17"), 12.6 lbs (19")                                                      |  |
| Shipping Weight                                                                   | 16 lbs (17"), 18 lbs (19")                              | 16 lbs (17") 18 lbs (19")                                                           |  |
| RECOMMENDED MOUNTS                                                                |                                                         |                                                                                     |  |
| Wall Mount                                                                        | PMCL-WM, PMCL-WMT, PMCL-WM1A,                           | PMCL-WM, PMCL-WMT, PMCL-WM1A,                                                       |  |
| Ceiling Mount                                                                     | PMCL-CM, PMCL-CMP                                       | PMCL-CM, PMCL-CMP                                                                   |  |
| Rack Mount                                                                        | PMCL-17ARM, PMCL-19ARM                                  | PMCL-17ARM, PMCL-19ARM                                                              |  |
| Certifications                                                                    | CE Class B; FCC Class B; UL/cUL Listed; C-Tick; S-Mark; | CE Class B; FCC Class B; UL/cUL Listed; C-Tick; S-Mark;                             |  |
| Warranty                                                                          | 3 years                                                 | 3 years                                                                             |  |

| 500 Series desktop                                                                               |                                                                   | 500 Series large format                                                                                                                     |  |
|--------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|--|
| <br>PMCL524BL |                                                                   | <br>PMCL532BL, PMCL42BL, PMCL46BL, and PMCL55BL        |  |
| GENERAL                                                                                          |                                                                   |                                                                                                                                             |  |
| Native Resolution                                                                                | 1920x1080                                                         | 1920x1080                                                                                                                                   |  |
| Brightness                                                                                       | 250 nit (24") and 450 nit (32")                                   | 500 nit (typical)                                                                                                                           |  |
| Contrast Ratio                                                                                   | 1000:1 (24") and 5000:1 (32")                                     | 3000:1 (32"), 4000:1 (42", 46", 55")                                                                                                        |  |
| Response Time                                                                                    | 5 ms (24") and 8 ms (32")                                         | 6.5 ms (typical)                                                                                                                            |  |
| Panel Life                                                                                       | 30K hours                                                         | 50K hours                                                                                                                                   |  |
| Viewing Angle                                                                                    | 170/160                                                           | 178/178                                                                                                                                     |  |
| Aspect Ratio                                                                                     | 16:9                                                              | 16:9                                                                                                                                        |  |
| ELECTRICAL                                                                                       |                                                                   |                                                                                                                                             |  |
| Power Consumption                                                                                | < 60 W                                                            | 120 W (32"), 150 W (42"), 160 W (46"), < 170 W (55")                                                                                        |  |
| Input Voltage                                                                                    | 100 to 240 VAC, 50/60 Hz                                          | 100 to 240 VAC, 50/60 Hz                                                                                                                    |  |
| Video Input                                                                                      | 1 BNC, looping: 1 S-Video, looping: 1 RGB: 1 DVI: 1 HDMI          | 1 S-video; 1 component video; 1 video in, 1 video out; 1 display port*; 1 HDMI; 1 DVI in; 1 VGA out, 1 VGA in (*not available on PMCL532BL) |  |
| ENVIRONMENTAL                                                                                    |                                                                   |                                                                                                                                             |  |
| Operating Temperature                                                                            | 0 – 40 °C                                                         | 0 – 40 °C                                                                                                                                   |  |
| Operating Humidity                                                                               | 10% – 90% non-condensing                                          | 20% – 80% non-condensing                                                                                                                    |  |
| PHYSICAL                                                                                         |                                                                   |                                                                                                                                             |  |
| Unit Weight                                                                                      | 11.0 lbs                                                          | 27.6 lbs (32"), 44.1 lbs (42"), 50.0 lbs (46"), 66.6 lbs (56")                                                                              |  |
| Shipping Weight                                                                                  | 20.1 lbs                                                          | 35.7 lbs (32"), 62.0 lbs (42"), 67.2 lbs (46"), 87.3 lbs (56")                                                                              |  |
| RECOMMENDED MOUNTS                                                                               |                                                                   |                                                                                                                                             |  |
| Wall Mount                                                                                       | PMCL-WM, PMCL-WMT, PMCL-WM1A                                      | PMCLNBWMT (Tilt), PMCLNBWMF (Fixed), PMCLNBWMS (Arm)                                                                                        |  |
| Ceiling Mount                                                                                    | PMCL-CM, PMCL-CMP                                                 | PMCL-CM, PMCL-CMP (32" only)                                                                                                                |  |
| Rack Mount                                                                                       | N/A                                                               | N/A                                                                                                                                         |  |
| Certifications                                                                                   | CE Class B; FCC Class B; UL/cUL Listed; C-Tick; CCC; GOST-R; NOM; | CE Class B; FCC Class B; UL/cUL Listed; C-Tick; CCC; GOST-R; NOM; ENERGY STAR® Level 5.1 Compliant                                          |  |
| Warranty                                                                                         | 3 years                                                           | 3 years                                                                                                                                     |  |

## Digital video recorders

DX Series DVRs are the ideal choice for affordable, efficient entry into full-featured video storage management. With support for four to 16 analog cameras, 120 to 480 IPS, and storage from 250 GB to 8 TB, these systems are designed for easy use out of the box. Customers can connect Pelco DVRs and HVRs by using DS ControlPoint or the new DX Series client.

|                                                         | DX4100                                                                            | DX4700                                                                             | DX4800                                                                              |
|---------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                                                         |  |  |  |
| <b>GENERAL</b>                                          |                                                                                   |                                                                                    |                                                                                     |
| Analog Camera Inputs                                    | 4                                                                                 | 8, 16                                                                              | 8, 16                                                                               |
| Looping                                                 | Yes                                                                               | Yes                                                                                | Yes                                                                                 |
| IP Camera Inputs                                        | None                                                                              | 2 megapixel                                                                        | 2 megapixel                                                                         |
| Maximum Record Rate CIF                                 | 120 IPS NTSC, 100 IPS PAL                                                         | 480 IPS NTSC, 400 IPS PAL                                                          | 480 IPS NTSC, 400 IPS PAL                                                           |
| Maximum Record Rate 2CIF                                | 60 IPS NTSC, 50 IPS PAL                                                           | 240 IPS NTSC, 200 IPS PAL                                                          | 480 IPS NTSC, 400 IPS PAL                                                           |
| Maximum Record Rate D1/4CIF                             | 30 IPS NTSC, 25 IPS PAL (4CIF)                                                    | 120 IPS NTSC, 96 IPS PAL (4CIF)                                                    | 480 IPS NTSC, 400 IPS PAL (4CIF)                                                    |
| Compression Technology                                  | H.264                                                                             | H.264                                                                              | H.264                                                                               |
| Operating System                                        | Embedded Linux                                                                    | Embedded Linux                                                                     | Embedded Linux                                                                      |
| Hard Drive Options, Internal                            | 250 GB – 2 TB, 1TB with ODD                                                       | 250 GB – 8 TB                                                                      | 250 GB – 8 TB                                                                       |
| Storage Optimization                                    | Yes (partitioning)                                                                | Yes (partitioning)                                                                 | Yes (partitioning)                                                                  |
| Hard Drive Options, External                            | No                                                                                | No                                                                                 | No                                                                                  |
| External Storage Options                                | No                                                                                | Yes – USB for backup                                                               | Yes – USB for backup                                                                |
| Optical Disk Drive                                      | None                                                                              | DVD-RW                                                                             | DVD-RW                                                                              |
| RAID Storage                                            | No                                                                                | No                                                                                 | No                                                                                  |
| Alarm Inputs / Relay Outputs                            | 4 / 1                                                                             | 8 or 16 / 4                                                                        | 8 or 16 / 4                                                                         |
| Audio Inputs / Outputs                                  | 4 / 1                                                                             | 2 or 4 / 2                                                                         | 4 / 2                                                                               |
| Audio Listen Capabilities                               | None                                                                              | Bidirectional                                                                      | Bidirectional                                                                       |
| PTZ Control                                             | RS-422                                                                            | Coaxitron, RS-422                                                                  | Coaxitron, RS-422                                                                   |
| Third-Party Dome Protocols                              | Yes                                                                               | Yes                                                                                | Yes                                                                                 |
| Front Panel Controls                                    | Yes                                                                               | Yes                                                                                | Yes                                                                                 |
| Keyboard / Mouse Included                               | No / yes                                                                          | No / yes                                                                           | No / yes                                                                            |
| IR Remote Control                                       | Yes                                                                               | Yes                                                                                | Yes                                                                                 |
| Optional Analog KBD Support                             | No                                                                                | Yes                                                                                | Yes                                                                                 |
| Multicasting                                            | No                                                                                | No                                                                                 | No                                                                                  |
| Multilingual Support                                    | Yes                                                                               | Yes                                                                                | Yes                                                                                 |
| System Compatibility                                    | DX Series client, DS ControlPoint                                                 | DX Series client, DS ControlPoint                                                  | DX Series client, DS ControlPoint                                                   |
| Certification Required                                  | No                                                                                | No                                                                                 | No                                                                                  |
| <b>DISPLAY OPTIONS</b>                                  |                                                                                   |                                                                                    |                                                                                     |
| Monitor Outputs                                         | 1 Main – VGA or BNC switch-selectable; 1 spot BNC, single channel view            | 1 Main – VGA or BNC; composite                                                     | 1 Main – VGA or BNC; composite                                                      |
| Camera Display                                          | 1, 4                                                                              | 1, 4, 6, 8, 9, 16                                                                  | 1, 4, 6, 8, 9, 16                                                                   |
| Digital Zoom Live / Playback                            | No / no                                                                           | No / yes                                                                           | No / yes                                                                            |
| <b>FUNCTION</b>                                         |                                                                                   |                                                                                    |                                                                                     |
| Alarm, Motion, Continuous, Scheduled Recording Modes    | Yes                                                                               | Yes                                                                                | Yes                                                                                 |
| Increased Record Rate on Alarm/Motion ("Bump on Alarm") | Yes                                                                               | Yes                                                                                | Yes                                                                                 |
| Pre-Alarm / Post-Alarm                                  | Off, 5, 10, 20, 30, 40, 50, 60 Sec / 10, 20, 30, 40, 50 sec, 1, 2, 3, 5, 10 min   | 1 minute / 10 minutes                                                              | 1 minute / 10 minutes                                                               |
| Optional ATM/POS Support                                | Via API integration                                                               | Via RS232 connect and text overlays or via API integration                         | Via RS232 connect and text overlays or via API integration                          |
| <b>REMOTE</b>                                           |                                                                                   |                                                                                    |                                                                                     |
| PC Remote Client                                        | Yes                                                                               | Yes                                                                                | Yes                                                                                 |
| View Live                                               | Yes                                                                               | Yes                                                                                | Yes                                                                                 |
| Playback                                                | Yes                                                                               | Yes                                                                                | Yes                                                                                 |
| Email on Alarm                                          | Yes                                                                               | Yes                                                                                | Yes                                                                                 |
| PTZ Control                                             | Yes                                                                               | Yes                                                                                | Yes                                                                                 |
| Remote Administration                                   | Yes                                                                               | Yes                                                                                | Yes                                                                                 |
| Emergency Agent                                         | Yes                                                                               | Yes                                                                                | Yes                                                                                 |
| Web Browser                                             | Live view                                                                         | Live view                                                                          | Live view                                                                           |
| Windows® Support                                        | Windows 7, Vista, XP Pro (with ControlPoint or DX Series client)                  | Windows 7, Vista, XP Pro (with ControlPoint or DX Series client)                   | Windows 7, Vista, XP Pro (with ControlPoint or DX Series client)                    |

## Hybrid video recorders

DX hybrid video recorders meet the demands of customers migrating to IP video while leveraging their existing analog video surveillance infrastructure. With support for eight to 32 analog cameras, plus eight IP megapixel cameras (DX4700HD/DX4800HD) and storage from 250 GB to 8 TB, these easy-to-use systems are ready to record out of the box.



### GENERAL

|                              | DX4700HD                          | DX4800HD                          | DX8100                                                              |
|------------------------------|-----------------------------------|-----------------------------------|---------------------------------------------------------------------|
| Analog Camera Inputs         | 8, 16                             | 8, 16                             | 8, 16, 24, 32                                                       |
| Looping                      | Yes                               | Yes                               | Yes                                                                 |
| IP Camera Inputs             | Up to 8                           | Up to 8                           | Up to 24 or 32 depending on system resources (IP licenses included) |
| Maximum Record Rate CIF      | 480 IPS NTSC, 400 IPS PAL         | 480 IPS NTSC, 400 IPS PAL         | 480 IPS NTSC, 400 IPS PAL                                           |
| Maximum Record Rate 2CIF     | 240 IPS NTSC, 200 IPS PAL         | 480 IPS NTSC, 400 IPS PAL         | 240 IPS NTSC, 200 IPS PAL                                           |
| Maximum Record Rate D1/4CIF  | 120 IPS NTSC, 96 IPS PAL (D1)     | 480 IPS NTSC, 400 IPS PAL (D1)    | 120 IPS NTSC, 100 IPS PAL (4CIF)                                    |
| Compression Technology       | H.264 main profile                | H.264 main profile                | Pelco                                                               |
| Operating System             | Embedded Linux                    | Embedded Linux                    | Windows XP embedded                                                 |
| Hard Drive Options, Internal | 250 GB – 8 TB                     | 250 GB – 8 TB                     | 250 GB – 8 TB                                                       |
| Storage Optimization         | Disk Partitioning                 | Disk Partitioning                 | None                                                                |
| Hard Drive Options, External | Yes                               | Yes                               | Yes                                                                 |
| External Storage Options     | Yes – 2 USB (1-eSATA)             | Yes – 2 USB (1-eSATA)             | DX8100HDDI to 24 TB/third-party USB                                 |
| Optical Disk Drive           | DVD-RW                            | DVD-RW                            | DVD-RW                                                              |
| RAID Storage                 | Optional configuration with eSATA | Optional configuration with eSATA | Yes, Optional to 24 TB                                              |
| Alarm Inputs / Relay Outputs | 8 or 16 / 2                       | 8 or 16 / 4                       | 8, 16, 24, 32 / 8, 16, 24                                           |
| Audio Inputs / Outputs       | 2 / 2                             | 4 / 2                             | 2 Standard 8, 16, 24, 32 Optional / 1                               |
| Audio Listen Capabilities    | Bidirectional, over the network   | Bidirectional, over the network   | Live over network                                                   |
| PTZ Control                  | Yes                               | Yes                               | Coaxitron, RS-422                                                   |
| Third-Party Dome Protocols   | Yes                               | Yes                               | Yes                                                                 |
| Front Panel Controls         | Yes                               | Yes                               | No                                                                  |
| Keyboard / Mouse Included    | No / yes                          | No / yes                          | Yes / yes                                                           |
| IR Remote Control            | Yes                               | Yes                               | No                                                                  |
| Optional Analog KBD Support  | Yes                               | Yes                               | Yes                                                                 |
| Multicasting                 | No                                | No                                | Yes, Layer 2 with optional network hardware                         |
| Multilingual Support         | Yes                               | Yes                               | Yes                                                                 |
| System Compatibility         | DX Series client, DS ControlPoint | DX Series client, DS ControlPoint | DX Series client, DS ControlPoint                                   |
| Certification Required       | No                                | No                                | No                                                                  |

### DISPLAY OPTIONS

|                            | DX4700HD                              | DX4800HD                              | DX8100                                                                             |
|----------------------------|---------------------------------------|---------------------------------------|------------------------------------------------------------------------------------|
| Monitor Outputs            | 1 Main – VGA or BNC; composite; 1080P | 1 Main – VGA or BNC; composite; 1080P | 1 Main – VGA; dual display – VGA or BNC; composite BNC – 1 with 8/16; 2 with 24/32 |
| Camera Display             | 1, 4, 6, 8, 9, 16, 25                 | 1, 4, 6, 8, 9, 16, 25                 | 1, 4, 9, 10, 16, 25, 36, 1+5, 2+8, 1+23                                            |
| Digital Zoom Live/Playback | No                                    | No                                    | Yes/Yes                                                                            |

### FUNCTION

|                                                         | DX4700HD                                                    | DX4800HD                                                    | DX8100                                                                                                |
|---------------------------------------------------------|-------------------------------------------------------------|-------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|
| Alarm, Motion, Continuous, Scheduled Recording Modes    | Yes, including ATM/POS                                      | Yes, including ATM/POS                                      | Yes, including ATM/POS                                                                                |
| Increased Record Rate on Alarm/Motion (“Bump on Alarm”) | Yes                                                         | Yes                                                         | Yes                                                                                                   |
| Pre-Alarm / Post-Alarm                                  | 1 minute / 10 minutes                                       | 1 minute / 10 minutes                                       | 1 minute standard; 15 minutes with memory upgrade / 1 minute standard; 15 minutes with memory upgrade |
| Optional ATM/POS Support                                | Via RS232 connect and text overlays; or via API integration | Via RS232 connect and text overlays; or via API integration | Via RS232 connect and text overlays; or via API integration                                           |

### REMOTE

|                       | DX4700HD                                                                                            | DX4800HD                                                                                         | DX8100                                                           |
|-----------------------|-----------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|------------------------------------------------------------------|
| PC Remote Client      | Yes                                                                                                 | Yes                                                                                              | Yes                                                              |
| View Live             | Yes                                                                                                 | Yes                                                                                              | Yes                                                              |
| Playback              | Yes                                                                                                 | Yes                                                                                              | Yes                                                              |
| Email on Alarm        | Yes                                                                                                 | Yes                                                                                              | Yes                                                              |
| PTZ Control           | Yes                                                                                                 | Yes                                                                                              | Yes                                                              |
| Remote Administration | Yes                                                                                                 | Yes                                                                                              | Yes                                                              |
| Emergency Agent       | Yes                                                                                                 | Yes                                                                                              | Yes                                                              |
| Web Browser           | Live view, PTZ                                                                                      | Live view, PTZ                                                                                   | Live view, PTZ                                                   |
| Windows Support       | Microsoft Windows® 2000, Windows XP (SP3), Windows Vista®, or Windows 7 and DirectX® 9.1 (or later) | Microsoft Windows 2000, Windows XP (SP3), Windows Vista, or Windows 7 and DirectX 9.1 (or later) | Windows 7, Vista, XP Pro (with ControlPoint or DX Series Client) |

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## IP video management solutions

With full-featured DSNVs video management software, a robust DSSRV network video recorder (NVR), analog camera support via optional direct-attached or network video encoders, multi-site monitoring, and support for third-party IP cameras, Digital Sentry™ is a flexible VMS for mainstream security applications.

### DSSRV



#### GENERAL

|                                |                                                                  |
|--------------------------------|------------------------------------------------------------------|
| Analog Camera Inputs           | See ENC5416 for analog camera support for DSSRV                  |
| Looping                        | See ENC5416 for analog camera support for DSSRV                  |
| IP Video Inputs                | Up to 128*                                                       |
| Maximum Inputs                 | 128                                                              |
| Number of Included IP Licenses | 8 included; additional license fee may apply                     |
| Megapixel Support              | Up to 10 Mpx                                                     |
| Compression Technology         | H.264, M-JPEG, and MPEG-4, depending on IP camera                |
| Operating System               | Windows 7 Ultimate                                               |
| Hard Drive Options, Internal   | 500 GB, 3, 6, 9, 12, 15, 18 TB (to 12 TB with ODD)               |
| Hard Drive Options, External   | DX8100HDDI SCSI, USB, or NAS                                     |
| Optical Disk Drive             | DVD+/-RW with DSSRV-DVD models                                   |
| RAID Storage                   | Optional with RAID 5 controller add-on or RAID 5 model           |
| Alarm Inputs / Relay Outputs   | See ENC5416 for analog alarms in / relays out                    |
| Audio Inputs/Outputs           | Supports Sarix™ IP audio; see ENC5416 for analog audio recording |
| PTZ Control                    | IP and analog supported                                          |
| Front Panel Display            | System status and health diagnostic LEDs                         |
| Keyboard / Mouse Included      | Yes / yes                                                        |
| Optional KBD Support           | Yes (KBD5000 PTZ and screen layout changes only)                 |
| Multicasting                   | No                                                               |
| Multilingual Support           | Yes                                                              |
| System Compatibility           | DS ControlPoint to DS and DX systems                             |
| Certification Required         | No                                                               |

#### DISPLAY OPTIONS

|                            |                                                                                        |
|----------------------------|----------------------------------------------------------------------------------------|
| Monitor Outputs            | Based on configuration of client PC<br>Up to 6 monitors with appropriate graphics card |
| Camera Views               | 22 layouts, from 1 to 36 cameras                                                       |
| Digital Zoom Live/Playback | Yes                                                                                    |

#### FUNCTION

|                                                         |                                                                                             |
|---------------------------------------------------------|---------------------------------------------------------------------------------------------|
| Alarm, Motion, Continuous, Scheduled Recording Modes    | Yes                                                                                         |
| Increased Record Rate on Alarm/Motion ("Bump on Alarm") | Yes                                                                                         |
| Pre-Alarm / Post-Alarm                                  | 5 minutes / 16 minutes                                                                      |
| Optional ATM/POS Support                                | Through API integration                                                                     |
| Video Analytics                                         | Pelco analytics from Sarix based cameras and encoders with DS NVs (DS NVS 7.3.54 or higher) |

#### REMOTE CLIENT

|                       |                                                     |
|-----------------------|-----------------------------------------------------|
| PC Remote Client      | Yes                                                 |
| View Live             | Yes                                                 |
| Playback              | Yes                                                 |
| Email on Alarm        | Yes                                                 |
| PTZ Control           | Yes                                                 |
| Remote Administration | Yes                                                 |
| Mobile Client         | Yes                                                 |
| Emergency Agent       | No                                                  |
| Web Browser           | No                                                  |
| Windows Support       | Windows 7, Windows Vista, Windows Server® 2003/2008 |

\* The database limitation for DSNVs is 128 cameras. The actual number of camera supported depends on recording settings, client connections, and bandwidth capacity.

## Software-only VMS solution

This software-only solution is ideal when the preference is for COTS hardware, maximizing existing purchase and support agreements with server and PC suppliers. Windows-compatible, built-in support for ONVIF™ and a wide range of third-party IP cameras and encoders makes Digital Sentry a flexible VMS solution for mainstream security applications.

### DSNVs



|                                                  |                                                                                                                     |
|--------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|
| Maximum IP Video Inputs                          | Up to 128*                                                                                                          |
| 3rd-Party Camera Supported                       | IP Drivers and ONVIF**                                                                                              |
| Camera License Fees Apply                        | 4 free; additional connection license fee applies                                                                   |
| Base License Fee                                 | None                                                                                                                |
| Annual Maintenance Fees                          | None                                                                                                                |
| Megapixel Support                                | Up to 10 Mpx                                                                                                        |
| Maximum # of Clients                             | Dependent on system resources and bandwidth availability                                                            |
| H.264 Support                                    | ✓                                                                                                                   |
| MPEG-4 Support                                   | ✓                                                                                                                   |
| MJPEG Support                                    | ✓                                                                                                                   |
| Quick Setup                                      | ✓                                                                                                                   |
| Export Formats                                   | H.264, MPEG-4, MPEG, JPEG, AVI, Native DB                                                                           |
| Multiple Viewing Panes via Monitor Tear-Off Tabs | ✓                                                                                                                   |
| Alarm Pop-Up Notifications                       | ✓                                                                                                                   |
| Search Tools                                     | Date/time/events/motion/scrub bar/<br>Pelco analytic alarms, thumbnail                                              |
| Analytics Support                                | Pelco Analytics with DSNVs 7.3.54 and above                                                                         |
| Archive Video Recording                          | Via archive utility                                                                                                 |
| 3rd-Party Integrations                           | Via Pelco API                                                                                                       |
| Certification Required                           | No                                                                                                                  |
| Compatibility via ControlPoint                   | DS systems including legacy DVX Master Control Series, Pelco DX4100, 4500/4600, 4700/4800, 4700HD/4800HD, 8000/8100 |
| Operating Systems                                | Windows 7, Windows Vista, Windows XP, Server 2003, 2008                                                             |
| Mobile App                                       | Yes                                                                                                                 |

\* 128 is the database limitation. Actual number is dependent on hardware specifications and camera settings.

\*\* See Document C1024RN-x "DS Compatibility Release Notes" on [www.pelco.com](http://www.pelco.com).

### DSSRV Options



ENC5416 analog encoder

#### GENERAL

|                       |                                                                                           |
|-----------------------|-------------------------------------------------------------------------------------------|
| Video Resolutions     | D1 4CIF, 2CIF, CIF, QCIF                                                                  |
| Frame Rate            | D1 480 NTSC / 400 PAL, independently configurable                                         |
| Alarm Inputs          | 16 per ENC5416, 64 maximum per DSSRV                                                      |
| Relay Outputs         | 4 per ENC5416, 16 maximum per DSSRV                                                       |
| Audio Inputs          | 16 per ENC5416, 64 maximum per DSSRV                                                      |
| Compression Format    | H.264 Main Profile                                                                        |
| Analog Output         | 4 BNC connectors for spot monitor                                                         |
| PTZ Control Interface | 2 RS-422, RS-485                                                                          |
| PTZ Protocols         | Pelco D and third-party                                                                   |
| Rack Mount            | 2 mounting brackets included, connection interface to NVR: direct attached via HDMI cable |

## Matrix systems and controls

Pelco CM6700 and CM6800 Series matrix switchers offer an ideal analog matrix switching solution for 16 to 96 cameras, bringing large-matrix performance in reach of smaller installations.

| Matrix switcher/controller                                                          |                                                                        |                                                                                    |                                                                                                                   |
|-------------------------------------------------------------------------------------|------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|
|    |                                                                        |  |                                                                                                                   |
| CM6700 Series                                                                       |                                                                        | CM6800 Series                                                                      |                                                                                                                   |
|  |                                                                        |                                                                                    |                                                                                                                   |
| CM6800E Series                                                                      |                                                                        |                                                                                    |                                                                                                                   |
| GENERAL                                                                             |                                                                        |                                                                                    |                                                                                                                   |
| Video Inputs                                                                        | 16                                                                     | 32                                                                                 | 40                                                                                                                |
| Video Outputs                                                                       | 4                                                                      | 6                                                                                  | 8                                                                                                                 |
| Switching Time                                                                      | 16 ms                                                                  | 16 ms                                                                              | 16 ms                                                                                                             |
| Keyboard Capacity                                                                   | 8                                                                      | 10                                                                                 | 18                                                                                                                |
| Receiver/Dome Control                                                               | Coaxitron and RS-422                                                   | Coaxitron and RS-422                                                               | Coaxitron and RS-422                                                                                              |
| Alarm Inputs                                                                        | 18, programmable                                                       | 8, programmable; 128, via alarm interface units, providing a total of 136 possible | [CM6800E-48X8] 8, programmable; [96 x 16 system external] 16 total (8, programmable, 4 via alarm interface units) |
| Alarm Relay Outputs                                                                 | One, SPDT                                                              | One, SPDT                                                                          | Two, SPDT                                                                                                         |
| Rating                                                                              | 0.5 amp at 125 VAC                                                     | 0.5 amp at 125 VAC, 1 amp at 30 VDC, 60 milliohms contact resistance               | 2; 0.5 amp at 125 VAC, 1 amp at 30 VDC, 60 milliohms contact resistance;                                          |
| Open Collector Outputs                                                              | 2, TTL; 32 VDC max, 25 mA max                                          | 1; 15 VDC max, 25 mA max                                                           | 1; 15 VDC max, 25 mA max                                                                                          |
| General Purpose Outputs                                                             | None                                                                   | 2 relay interface units                                                            | 4 relay interface units                                                                                           |
| Communication Ports                                                                 | 2                                                                      | 6 total (5 data, 1 PTZ control, 1 data powered for keyboards)                      | 10 total (8 data, 2 PTZ control; 2 data powered for keyboards)                                                    |
| Ambient Operating Temperature                                                       | 20 to 120 °F (-7 to 49 °C)                                             | 20 to 120 °F (-7 to 49 °C)                                                         | 20 to 120 °F (-7 to 49 °C)                                                                                        |
| Multi-Language Menus                                                                | Yes                                                                    | Yes                                                                                | Yes                                                                                                               |
| Windows-Based Manager Software                                                      | Yes                                                                    | Yes                                                                                | Yes                                                                                                               |
| ELECTRICAL                                                                          |                                                                        |                                                                                    |                                                                                                                   |
| Power Source                                                                        | 120 V or 230 V, 50/60 Hz                                               | 120 VAC or 230 VAC, 50/60 Hz, auto-ranging                                         | 120 VAC or 230 VAC, 50/60 Hz, auto-ranging                                                                        |
| Power Consumption                                                                   | 10 W                                                                   | 25 W                                                                               | [CM6800E-48X8] 25 W; [96 x 16 System] 50 W                                                                        |
| VIDEO                                                                               |                                                                        |                                                                                    |                                                                                                                   |
| Bandwidth                                                                           | 15 MHz                                                                 | 15 MHz                                                                             | 16 MHz                                                                                                            |
| Signal-to-Noise Ratio                                                               | -60 dB (peak-to-peak vs. RMS noise)                                    | -44.26 dB (peak-to-peak vs. RMS noise)                                             | -44.26 dB (peak-to-peak vs. RMS noise)                                                                            |
| Adjacent Channel Crosstalk                                                          | -49.6 dB at 3.58 MHz                                                   | -56.47 dB at 3.58 MHz                                                              | -56.47 dB at 3.58 MHz                                                                                             |
| Differential Gain / Phase                                                           | 1.03% / 1.02°                                                          | 0.11% / 0.06°                                                                      | 0.11% / 0.06°                                                                                                     |
| Differential Phase                                                                  | N/A                                                                    | N/A                                                                                | N/A                                                                                                               |
| Line Tilt/Field Tilt                                                                | 0.6%/1.2%                                                              | 0.2%/0.56%                                                                         | 0.2%/0.56%                                                                                                        |
| MECHANICAL                                                                          |                                                                        |                                                                                    |                                                                                                                   |
| Dimensions                                                                          |                                                                        |                                                                                    |                                                                                                                   |
| Switcher/Matrix Bay                                                                 | 3.5" H x 17" W x 10.5" D (8.89 x 43.18 x 26.67 cm)                     | 12.25" D x 17.40" W x 5.25" H (31.12 x 44.20 x 13.34 cm)                           | 12.25" D x 17.40" W x 5.25" H (31.12 x 44.20 x 13.34 cm)                                                          |
| Rack-Mountable                                                                      | Yes (2 RU)                                                             | Yes (3 RU)                                                                         | Yes (3 RU)                                                                                                        |
| CERTIFICATIONS/RATINGS                                                              |                                                                        |                                                                                    |                                                                                                                   |
|                                                                                     | CE compliant; UL/cUL Listed; FCC Class A; Meets NEMA® Type 1 standards | CE Class B; UL/cUL Listed; FCC Class B                                             | CE Class B; CE Class A; FCC Class B; FCC Class A; UL/cUL Listed                                                   |

## Matrix systems and controls

Pelco matrix switchers offer unmatched analog switching performance for the largest installations, with support for thousands of cameras and hundreds of monitors. Expanded monitor capacity in the matrix bay allows implementation of larger systems with a smaller footprint (less hardware) than other matrix systems.



| Matrix system                  |                                                              |                                                                                                                                                                              |                                                                                                                                                                              |
|--------------------------------|--------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CENTRAL PROCESSING UNIT        |                                                              |                                                                                                                                                                              |                                                                                                                                                                              |
| ELECTRIC                       |                                                              |                                                                                                                                                                              |                                                                                                                                                                              |
| Input Voltage                  | 120 VAC, 60 Hz or 230 VAC, 50 Hz, autoranging                | 120 VAC, 60 Hz or 230 VAC, 50 Hz, autoranging                                                                                                                                | 121 VAC, 60 Hz or 230 VAC, 50 Hz, autoranging                                                                                                                                |
| Power Consumption              | 57 W                                                         | 57 W                                                                                                                                                                         | 57 W                                                                                                                                                                         |
| Diagnostic Monitor Output      | 1 VGA                                                        | 1 VGA                                                                                                                                                                        | 1 VGA                                                                                                                                                                        |
| I/O Port                       | 16 RS-422 ports (expandable to 120);<br>2 RS-232 ports       | 16 RS-422 ports (expandable to 32); total system<br>capability is 120 ports/2 RS-232 ports/1 parallel<br>printer port/1 VGA output port/2 PC-AT compatible<br>keyboard ports | 16 RS-422 ports (expandable to 32); total system<br>capability is 120 ports/2 RS-232 ports/1 parallel<br>printer port/1 VGA output port/2 PC-AT compatible<br>keyboard ports |
| GENERAL                        |                                                              |                                                                                                                                                                              |                                                                                                                                                                              |
| Operating Temperature          | 32 to 120 °F (0 to 49 °C)                                    | 32 to 120 °F (0 to 49 °C)                                                                                                                                                    | 32 to 120 °F (0 to 49 °C)                                                                                                                                                    |
| Rack-Mountable                 | Yes                                                          | Yes                                                                                                                                                                          | Yes                                                                                                                                                                          |
| CERTIFICATIONS                 |                                                              |                                                                                                                                                                              |                                                                                                                                                                              |
|                                | CE Class A; FCC Class A; UL/cUL Listed                       | CE Class A; FCC Class A; UL/cUL Listed; C-Tick                                                                                                                               | CE Class A; FCC Class A; UL/cUL Listed; C-Tick                                                                                                                               |
| SWITCHER/MATRIX SWITCHING BAY  |                                                              |                                                                                                                                                                              |                                                                                                                                                                              |
| GENERAL                        |                                                              |                                                                                                                                                                              |                                                                                                                                                                              |
| Video Inputs                   | 2,048 (up to 256 inputs per bay)                             | 2,048 (up to 256 inputs per bay)                                                                                                                                             | 4,096 (up to 512 inputs per bay)                                                                                                                                             |
| Video Outputs                  | 512 (up to 16 outputs per bay)                               | 512 (up to 32 outputs per bay)                                                                                                                                               | 512 (up to 32 outputs per bay)                                                                                                                                               |
| Switching Time                 | 16 ms                                                        | 16 ms                                                                                                                                                                        | 16 ms                                                                                                                                                                        |
| Ambient Operating Temperature  | 32 to 122 °F (0 to 50 °C), non condensing                    | 32 to 122 °F (0 to 50 °C), non condensing                                                                                                                                    | 32 to 122 °F (0 to 50 °C), non condensing                                                                                                                                    |
| Multi-Language Menus           | Yes                                                          | Yes                                                                                                                                                                          | Yes                                                                                                                                                                          |
| Windows-Based Manager Software | Yes                                                          | Yes                                                                                                                                                                          | Yes                                                                                                                                                                          |
| Macro Programming              | Yes                                                          | Yes                                                                                                                                                                          | Yes                                                                                                                                                                          |
| Video Loss Detection Included  | Yes                                                          | Yes                                                                                                                                                                          | Yes                                                                                                                                                                          |
| ELECTRICAL                     |                                                              |                                                                                                                                                                              |                                                                                                                                                                              |
| Power Source                   | 100 to 240 VAC, 50/60 Hz, autoranging                        | 100 to 240 VAC, 50/60 Hz, autoranging                                                                                                                                        | 100 to 240 VAC, 50/60 Hz, autoranging                                                                                                                                        |
| Power Consumption              | 60 W maximum (fully populated)                               | 60 W maximum (fully populated)                                                                                                                                               | 60 W maximum (fully populated)                                                                                                                                               |
| VIDEO                          |                                                              |                                                                                                                                                                              |                                                                                                                                                                              |
| Bandwidth                      | 15 MHz                                                       | 15 MHz                                                                                                                                                                       | 15 MHz                                                                                                                                                                       |
| Signal-to-Noise Ratio          | -70.5 dB                                                     | -70.5 dB                                                                                                                                                                     | -70.5 dB                                                                                                                                                                     |
| Adjacent Channel Crosstalk     | -60.9 dB at 3.58 MHz                                         | -60.9 dB at 3.58 MHz                                                                                                                                                         | -60.9 dB at 3.58 MHz                                                                                                                                                         |
| Differential Gain/Phase        | 0.51%                                                        | 0.51%                                                                                                                                                                        | 0.51%                                                                                                                                                                        |
| Differential Phase             | 0.38°                                                        | 0.38°                                                                                                                                                                        | 0.38°                                                                                                                                                                        |
| Line Tilt / Field Tilt         | 0.40% / 0.59%                                                | 0.40% / 0.59%                                                                                                                                                                | 0.40% / 0.59%                                                                                                                                                                |
| MECHANICAL                     |                                                              |                                                                                                                                                                              |                                                                                                                                                                              |
| Dimensions                     |                                                              |                                                                                                                                                                              |                                                                                                                                                                              |
| Switcher/Matrix Bay            | 21.70" D x 19.00" W x 10.50" H<br>(55.10 x 48.26 x 26.67 cm) | 21.70" D x 19.00" W x 10.50" H<br>(55.10 x 48.26 x 26.67 cm)                                                                                                                 | 21.70" D x 19.00" W x 10.50" H<br>(55.10 x 48.26 x 26.67 cm)                                                                                                                 |
| Mounting Baffle                | 24.00" D x 19.00" W x 1.75" H<br>(60.96 x 48.26 x 4.45 cm)   | 24.00" D x 19.00" W x 1.75" H<br>(60.96 x 48.26 x 4.45 cm)                                                                                                                   | 24.00" D x 19.00" W x 1.75" H<br>(60.96 x 48.26 x 4.45 cm)                                                                                                                   |
| CM9700-VPP                     | N/A                                                          | N/A                                                                                                                                                                          | 6.00" D x 19.00" W x 1.07" H<br>(15.24 x 48.26 x 2.72 cm)                                                                                                                    |
| CM9700-VPP-RK                  | N/A                                                          | N/A                                                                                                                                                                          | 14.12" D x 19.00" W x 13.96" H<br>(35.86 x 48.26 x 35.46 cm)                                                                                                                 |
| Rack-Mountable                 | Yes (matrix bay: 6 RUs; mounting baffle: 1RU)                | Yes (matrix bay: 6 RUs; mounting baffle: 1RU)                                                                                                                                | Yes (matrix bay: 6 RUs; mounting baffle: 1RU)                                                                                                                                |
| CERTIFICATIONS/RATINGS         |                                                              |                                                                                                                                                                              |                                                                                                                                                                              |
|                                | CE Class A; FCC Class A; UL/cUL Listed                       | CE Class A; FCC Class A; UL/cUL Listed; C-Tick                                                                                                                               | CE Class A; FCC Class A; UL/cUL Listed; C-Tick                                                                                                                               |

## Video transmission solutions

Today's security professionals are challenged by an ever-increasing number of installations beyond the reach of standard coaxial transmission capabilities. PelcoFiber™ technology meets these demands by utilizing the best transmission quality available over extended distances to provide a full line of video, data, and audio communications.

|                                     | Data                                                                                                                                                   | Video                                                                                                                                                     | Video and data                                                                                                                                            |
|-------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                     |                                                                       |                                                                         |                                                                        |
|                                     | <b>FTD1/FRD1 Series;<br/>FTD4/FRD4 Series</b>                                                                                                          | <b>FTV10 Series; FTV10M Series; FRV20 Series;<br/>FTV40/FRV40 Series; FTV80/FRV80 Series;<br/>FTV160/FRV160 Series; FTV320/FRV320 Series</b>              | <b>FTV10D1/FRV10D1 Series;<br/>FSV10D1 Series (in-dome)**</b>                                                                                             |
| <b>DATA</b>                         |                                                                                                                                                        |                                                                                                                                                           |                                                                                                                                                           |
| Number of Channels                  | 1, 4                                                                                                                                                   | None                                                                                                                                                      | 1                                                                                                                                                         |
| Data Communication                  | Bidirectional RS-232, RS-422, RS-485 (2-wire/4-wire), Manchester, and Bi-Phase                                                                         | None                                                                                                                                                      | Bidirectional RS-232, RS-422, RS-485 (2-wire/4-wire), Manchester, Bi-Phase, and Coaxitron® (FTV10D1/FRV10D1); Bidirectional RS-422 or Coaxitron (FSV10D1) |
| <b>VIDEO</b>                        |                                                                                                                                                        |                                                                                                                                                           |                                                                                                                                                           |
| Number of Channels                  | None                                                                                                                                                   | 1, 2, 4, 8, 16, or 32                                                                                                                                     | 1                                                                                                                                                         |
| Video Encoding                      | None                                                                                                                                                   | 10-bit                                                                                                                                                    | 10-bit                                                                                                                                                    |
| Video Input/Output                  | None                                                                                                                                                   | 1.0 Vp-p, 75 ohms; NTSC, PAL, SECAM/> 1.5 Vp-p                                                                                                            | 1.0 Vp-p, 75 ohms; NTSC, PAL, SECAM/> 1.5 Vp-p                                                                                                            |
| Bandwidth                           | None                                                                                                                                                   | 5 to 10 MHz (1, 2, 4, and 8 CH); 10 to 6.5 MHz per CH (16 and 32 CH)                                                                                      | 5 Hz to 10 MHz (FTV10D1/FRV10D1); 5 Hz to 6.5 MHz (FSV10D1)                                                                                               |
| Differential Gain / Phase / Tilt    | None                                                                                                                                                   | < 2% / < 0.7° / < 1%                                                                                                                                      | < 2% / < 0.7° / < 1%                                                                                                                                      |
| Signal-to-Noise Ratio               | None                                                                                                                                                   | > 67 dB typical at maximum optical loss                                                                                                                   | > 67 dB typical at maximum optical loss                                                                                                                   |
| <b>AUDIO</b>                        |                                                                                                                                                        |                                                                                                                                                           |                                                                                                                                                           |
| Number of Channels                  | None                                                                                                                                                   | None                                                                                                                                                      | None                                                                                                                                                      |
| Audio Input/Output                  | None                                                                                                                                                   | None                                                                                                                                                      | None                                                                                                                                                      |
| Bandwidth                           | None                                                                                                                                                   | None                                                                                                                                                      | None                                                                                                                                                      |
| Total Harmonic Distortion           | None                                                                                                                                                   | None                                                                                                                                                      | None                                                                                                                                                      |
| Signal-to-Noise Ratio               | None                                                                                                                                                   | None                                                                                                                                                      | None                                                                                                                                                      |
| <b>CONTACT CLOSURE</b>              |                                                                                                                                                        |                                                                                                                                                           |                                                                                                                                                           |
| Number of Channels                  | None                                                                                                                                                   | None                                                                                                                                                      | None                                                                                                                                                      |
| CC Input/Output                     | None                                                                                                                                                   | None                                                                                                                                                      | None                                                                                                                                                      |
| <b>GENERAL</b>                      |                                                                                                                                                        |                                                                                                                                                           |                                                                                                                                                           |
| Operating Temperature               | -40 to 75 °C (-40 to 167 °F)                                                                                                                           | -40 to 75 °C (-40 to 167 °F)                                                                                                                              | -40 to 75 °C (-40 to 167 °F)                                                                                                                              |
| Power                               | 8 to 15 VDC @ 2 W (1 CH);<br>8 to 15 VDC @ 4 W (4 CH);                                                                                                 | 9 to 36 VDC @ 2W (1 CH mini); 8 to 15 VDC @ 2 W (1 CH); 8 to 15 VDC @ 4 W (2 CH, 8 CH); 8 to 15 VDC @ 3 W (4 CH); 90 to 264 VAC @ 70 W max (16 and 32 CH) | 8 to 15 VDC @ 2 W (FTV10D1/FRV10D1); 8 to 15 VDC @ 350 mA from dome (FSV10D1)                                                                             |
| LED Indicators                      | Yes, for all critical operating parameters                                                                                                             | Yes, for all critical operating parameters                                                                                                                | Yes, for all critical operating parameters                                                                                                                |
| Optical Emitter                     | Laser Diode                                                                                                                                            | Laser (1 CH mini); Laser Diode                                                                                                                            | Laser Diode                                                                                                                                               |
| Wavelength                          | 1310 nm/1550 nm                                                                                                                                        | 1310 nm/1310 nm                                                                                                                                           | 1310 nm/1550 nm                                                                                                                                           |
| Optical Power Budget (MM/SM)        | 16 dB/23 dB                                                                                                                                            | 12 dB/16 dB (1 CH mini); 12 dB/26 dB (1 CH); 16 dB/23 dB (2 CH, 4 CH); 16 dB/16dB (8 CH); 18 dB (16 and 32 CH)                                            | 16 dB/23 Db (FTV10D1/FRV10D1); 16 dB/20 Db (FSV10D1)                                                                                                      |
| Multimode Fiber Support Distances   | 4 km (1 CH); 3 km (4 CH)                                                                                                                               | 4 km (1 CH mini, 1 CH); 3 km (2 CH, 8 CH); 2 km (4 CH)                                                                                                    | 3 km (FTV10D1/FRV10D1); 4 km (FSV10D1)                                                                                                                    |
| Single-Mode Fiber Support Distances | 69 km                                                                                                                                                  | 54 km (1CH mini, 1 CH); 48 km (2 CH, 8 CH); 69 km (4 CH); 54 km (16 and 32 CH)                                                                            | 69 km (FTV10D1/FRV10D1); 60 km (FSV10D1)                                                                                                                  |
| Standalone/Rack-Mountable           | Yes / yes                                                                                                                                              | Yes / yes (not applicable for 1CH mini, 16 and 32 CH)                                                                                                     | Yes / yes (FTV10D1/FRV10D1); No/no (FSV10D1)                                                                                                              |
| Number of Fibers                    | 1                                                                                                                                                      | 1, 2 (2 CH Rx only)                                                                                                                                       | 1                                                                                                                                                         |
| Number of Rack Slots                | 1 slot (1 CH); 2 slots (4 CH)                                                                                                                          | 1 slot (1 CH, 4 CH); 2 slots (2 CH, 8 CH)                                                                                                                 | 1 slot (FTV10D1/FRV10D1); not applicable (FSV10D1)                                                                                                        |
| <b>CONNECTORS</b>                   |                                                                                                                                                        |                                                                                                                                                           |                                                                                                                                                           |
| Optical                             | 1 slot (1 CH); 2 slots (4 CH)                                                                                                                          | ST (MM and SM), FC (SM)                                                                                                                                   | ST (MM and SM), FC (SM)                                                                                                                                   |
| Video                               | None                                                                                                                                                   | BNC (gold-plated center pin)                                                                                                                              | BNC, gold-plated center pin (FTV10D1/FRV10D1); Electrical connector (FSV10D1)                                                                             |
| Power                               | Terminal block                                                                                                                                         | Terminal block                                                                                                                                            | Terminal block (FTV10D1/FRV10D1); electrical connector (FSV10D1)                                                                                          |
| Data                                | Terminal block                                                                                                                                         | None                                                                                                                                                      | Terminal block (FTV10D1/FRV10D1); electrical connector (FSV10D1)                                                                                          |
| Contact Closure/Alarm               | None                                                                                                                                                   | None                                                                                                                                                      | None                                                                                                                                                      |
| Audio                               | None                                                                                                                                                   | None                                                                                                                                                      | None                                                                                                                                                      |
| <b>CERTIFICATIONS</b>               |                                                                                                                                                        |                                                                                                                                                           |                                                                                                                                                           |
|                                     | CE Class A; FCC Class A; UL/cUL Listed; C-Tick; designed to meet NEMA TS 1/TS 2 and Caltrans traffic signal control equipment environmental standards* | CE Class A; FCC Class A; UL/cUL Listed; C-Tick; designed to meet NEMA TS 1/TS 2 and Caltrans traffic signal control equipment environmental standards*    | CE Class A; FCC Class A; UL/cUL Listed; C-Tick; designed to meet NEMA TS 1/TS 2 and Caltrans traffic signal control equipment environmental standards*    |

\* Conformal coating is required for operation in environments with relative humidity above 95% (condensing). \*\* FSV10D1 (in-dome module) not pictured.

## Video transmission solutions

| Video and data                                                                    | Video, data, and audio                                                            |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
|  |  |
| <b>FTV40D2/FRV40D2 Series;<br/>FTV80D2/FRV80D2 Series</b>                         | <b>FTV10D1A2/FRV10D1A2 Series</b>                                                 |

| DATA                                |                                                                                                                                                        |                                                                                                                                                        |
|-------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| Number of Channels                  | 2                                                                                                                                                      | 1                                                                                                                                                      |
| Data Communication                  | Bidirectional RS-232, RS-422, RS-485 (2-wire/4-wire), Manchester, and Bi-Phase                                                                         | Bidirectional RS-232, RS-422, RS-485 (2-wire/4-wire), Manchester, and Bi-Phase                                                                         |
| VIDEO                               |                                                                                                                                                        |                                                                                                                                                        |
| Number of Channels                  | 4, 8                                                                                                                                                   | 1                                                                                                                                                      |
| Video Encoding                      | 10-bit                                                                                                                                                 | 10-bit                                                                                                                                                 |
| Video Input/Output                  | 1.0 Vp-p, 75 ohms; NTSC, PAL, SECAM/> 1.5 Vp-p                                                                                                         | 1.0 Vp-p, 75 ohms; NTSC, PAL, SECAM/> 1.5 Vp-p                                                                                                         |
| Bandwidth                           | 10 to 6.5 MHz per CH (4 CH)                                                                                                                            | 10 to 6.5 MHz per CH (4 CH)                                                                                                                            |
| Differential Gain / Phase / Tilt    | < 2% / < 0.7° / < 1%                                                                                                                                   | < 2% / < 0.7° / < 1%                                                                                                                                   |
| Signal-to-Noise Ratio               | > 67 dB typical at maximum optical loss                                                                                                                | > 67 dB typical at maximum optical loss                                                                                                                |
| AUDIO                               |                                                                                                                                                        |                                                                                                                                                        |
| Number of Channels                  | None                                                                                                                                                   | 2 (bidirectional)                                                                                                                                      |
| Audio Input/Output                  | None                                                                                                                                                   | Max. 4.4 Vp-p (+6 dBm)                                                                                                                                 |
| Bandwidth                           | None                                                                                                                                                   | 20 Hz to 18 kHz                                                                                                                                        |
| Total Harmonic Distortion           | None                                                                                                                                                   | 0.02%                                                                                                                                                  |
| Signal-to-Noise Ratio               | None                                                                                                                                                   | 85 dB (typical)                                                                                                                                        |
| CONTACT CLOSURE                     |                                                                                                                                                        |                                                                                                                                                        |
| Number of Channels                  | 1 (bidirectional)                                                                                                                                      | 1 (bidirectional)                                                                                                                                      |
| CC Input/Output                     | Dry/SPST relay, 0.5 contact rating                                                                                                                     | Dry/SPST relay, 0.5 contact rating                                                                                                                     |
| GENERAL                             |                                                                                                                                                        |                                                                                                                                                        |
| Operating Temperature               | -40 to 75 °C (-40 to 167 °F)                                                                                                                           | -40 to 75 °C (-40 to 167 °F)                                                                                                                           |
| Power                               | 8 to 15 VDC @ 4 W (4 CH)                                                                                                                               | 8 to 15 VDC @ 4 W (4 CH)                                                                                                                               |
| LED Indicators                      | Yes, for all critical operating parameters                                                                                                             | Yes, for all critical operating parameters                                                                                                             |
| Optical Emitter                     | Laser Diode                                                                                                                                            | Laser Diode                                                                                                                                            |
| Wavelength                          | 1310 nm/1310 nm                                                                                                                                        | 1310 nm/1550 nm                                                                                                                                        |
| Optical Power Budget (MM/SM)        | 16 dB/23 dB                                                                                                                                            | 16 dB/16 dB                                                                                                                                            |
| Multimode Fiber Support Distances   | 2 km                                                                                                                                                   | 4 km                                                                                                                                                   |
| Single-Mode Fiber Support Distances | 69 km                                                                                                                                                  | 48 km                                                                                                                                                  |
| Standalone / Rack-Mountable         | Yes / yes                                                                                                                                              | Yes / yes                                                                                                                                              |
| Number of Fibers                    | 1                                                                                                                                                      | 1                                                                                                                                                      |
| Number of Rack Slots                | 2 slot (4 CH); 3 slot (8 CH)                                                                                                                           | 2                                                                                                                                                      |
| CONNECTORS                          |                                                                                                                                                        |                                                                                                                                                        |
| Optical                             | ST (MM and SM), FC (SM)                                                                                                                                | ST (MM and SM), FC (SM)                                                                                                                                |
| Video                               | BNC (gold-plated center pin)                                                                                                                           | BNC (gold-plated center pin)                                                                                                                           |
| Power                               | Terminal block                                                                                                                                         | Terminal block                                                                                                                                         |
| Data                                | Terminal block                                                                                                                                         | Terminal block                                                                                                                                         |
| Contact Closure/Alarm               | Terminal block                                                                                                                                         | Terminal block                                                                                                                                         |
| Audio                               | None                                                                                                                                                   | Terminal block                                                                                                                                         |
| CERTIFICATIONS                      |                                                                                                                                                        |                                                                                                                                                        |
|                                     | CE Class A; FCC Class A; UL/cUL Listed; C-Tick; designed to meet NEMA TS 1/TS 2 and Caltrans traffic signal control equipment environmental standards* | CE Class A; FCC Class A; UL/cUL Listed; C-Tick; designed to meet NEMA TS 1/TS 2 and Caltrans traffic signal control equipment environmental standards* |

\* Conformal coating is required for operation in environments with relative humidity above 95% (condensing).

## Network video encoders

This family of H.264 network video encoders provide high performance, single- to multi-channel video encoding, integrating analog cameras, and positioning systems into an IP video surveillance system.

| NET5400 encoder                                                                     |                                                                     |
|-------------------------------------------------------------------------------------|---------------------------------------------------------------------|
|  |                                                                     |
| <b>NET5401, NET5402, NET5404</b>                                                    |                                                                     |
| Video Resolutions                                                                   | 4CIF, 2CIF, CIF, QCIF                                               |
| Frame Rate                                                                          | 25/30 FPS at 4CIF maximum, scalable                                 |
| Motion Detection                                                                    | Yes                                                                 |
| Alarm Inputs                                                                        | 3                                                                   |
| Relay Outputs                                                                       | 1                                                                   |
| Onboard Memory                                                                      | User-Supplied Micro SD                                              |
| Operating Temperature Range                                                         | Minimum of 32 °F (0 °C), Maximum 122 °F (50 °C)                     |
| Compression Formats                                                                 | M-JPEG, H.264 (base, main, and high profile)                        |
| Data Rate                                                                           | 20 kbit/s – 6 Mbit/s (2 Mbps per stream X 3)                        |
| Video Streams                                                                       | 3                                                                   |
| Audio                                                                               | Two-way, full or half duplex                                        |
| Analog Data Formats                                                                 | No                                                                  |
| Analog Output                                                                       | Looping on single and dual channel                                  |
| Network Protocols                                                                   | TCP/IP, UDP/IP (Unicast, Multicast IGMP), UPnP, DNS, DHCP, RTP, NTP |
| Video Signing at Source                                                             | Yes                                                                 |
| Web Browser Access                                                                  | Yes                                                                 |
| Open Architecture                                                                   | Yes, compatible with Pelco                                          |
| Users                                                                               | 10 simultaneous, unlimited using Multicast                          |
| POE                                                                                 | IEEE 802.3af class 3 on single and dual channel                     |
| Power                                                                               | 18 – 30 VAC, 24 VAC nominal; 0.75 A, 50/60 Hz nominal               |
| Pelco System Compatibility                                                          | Endura™, DS                                                         |
| Warranty                                                                            | 3 years                                                             |

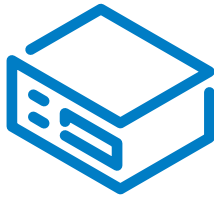
# End-to-end video security

Pelco produces the industry's broadest and most respected offering of IP and analog video security systems. From megapixel and integrated positioning systems to video management and software-only solutions, Pelco is committed to providing complete, end-to-end solutions backed by the most comprehensive customer support in the video security industry.

As part of Schneider Electric, Pelco connects you to the global specialist in energy and security management, and has the ability to deliver integrated security and building management solutions that let you control your entire security landscape across enterprises, from a single user interface.



Capture.



Manage.



Display.



For more information, please visit [www.pelco.com](http://www.pelco.com) or call (800) 289-9100 (United States and Canada) or +1 (559) 292-1981 (international). For pricing information or to purchase Pelco products, please contact your manufacturer's representative or the Pelco office in your area.

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